648 their home country. American troops, by their equal treatment of Negro
177 soldiers, created the impression that racial barriers had no place in their society!
The troops' friendliness to the Papuans was tangibly expressed by gifts, not only
[439] of tobacco and other small luxuries, but also of discarded tools and equipment
still used in villages today. It is in these events that the Orokaiva saw the portent of the coming of a new era.

731 *The Eruption of Mount Lamington.* In 1951, a Peléan eruption occurred on Mount Lamington. The *nuée ardente* produced by this eruption completely devastated a surrounding area of 68 sq. miles (Taylor 1958). Almost 4,000 people were killed and there were hardly any survivors of the numerous Sangara tribe. Those who did survive were provided with food, medicines and other comforts by the government and were for some time maintained in evacuation camps. The evacuees were not at once allowed to return to their villages as the authorities feared further explosions in the mountain. Some officials saw in this sequence of events a chance to create Papuan model communities with up-to-date socio-economic institutions. These plans for village reform, whatever their merits, were not realised at that time, partly because the danger of further explosions was soon greatly reduced, in the view of vulcanologists, so that the people were allowed to go back to their old village sites; partly also, because the reforms were not favoured by the Australian administration which assumed power after the defeat of the Labour Government in 1951.

648 *Intensification of Development Policy.* Large scale, expertly planned social,
657 economic and political development did not start in Papua until around 1960
(Parker 1966:189). In the economic sphere the first major development success
was the building up of a coffee industry based on the production of indigenous
[464] growers using their own village land. While by far the largest quantity of this
coffee is grown in the Highlands, the yield in the Northern District was enough
[434] to assure to any Orokaiva who entered the scheme an income of something like
$60–100, in the year 1966–67. During that year all the villages I visited, both on the foothills and in the plains, were producing coffee. It was an activity in which any able-bodied man resident in a village would normally engage to a greater or lesser extent. Several factors aided the development of this industry.

[242] Agricultural extension work to train the population of the Northern District in coffee growing began immediately after the eruption. A training school was set up in Popondetta. Papuan agricultural assistants were trained to give basic instruction and to distribute seed. These assistants spread knowledge not only while they were employed by the government, but even more when they went back to their villages and grew their own coffee.

648 Title improvement work is also beginning to contribute to agricultural
657 development. Until 1956, the government kept entirely aloof from indigenous
tenure problems and passed no ordinances enabling it to adjudicate in land
423 disputes. By that time, however, it had become obvious that commercial
arboriculture could be developed only to a limited extent unless a land registry was introduced and the traditional Orokaiva principle of maintaining residual rights in land was adandoned. Though the first attempts to change the land tenure system were unsuccessful, in 1967 it looked as though a very satisfactory procedure had been worked out. (See Ch. V.)

648 Road improvement was another necessary preliminary to significant village
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121 differences that must be clearly stated to avoid confusion. When the two earlier authors speak of mediation, they are usually dealing with real existents which appear as binary oppositions in non-empirical cognitive systems, e.g. earth /sky. The mediating element is likewise a real existent which is physically interposed between the two opposites. e.g. trees, birds. Their physically intermediate position is an empirical fact utilised in the building of cognitive systems, which treat trees or birds as mediators between earth and sky.

When Lévi-Strauss speaks of 'mediation' in the context of sacrifice, he warns that he is not speaking of the same thing: while cognitive systems are 'systems of reference' classifying real existents, sacrifice is a 'system of operations', a technique for obtaining certain results where the opposed elements are: the Self (a real existent, in this argument) and the Other – who is transcendant and may be a god postulated for the sake of obtaining the results. While trees and birds are always physically interposed between earth and sky, a pig is interposed between man and god, or between two exchange partners, purely as an operational strategem. It may be replaced by a different object of mediation (a chicken) or by anything else human ingenuity may invent. Lévi-Strauss describes the difference thus:

> *Les systèmes classificatoires se situent au niveau de la langue: ce sont des codes plus ou moins bien faits, mais toujours en vue d'exprimer des sens, tandis que le système du sacrifice représente un discours particulier, et dénué de bon sens quoiqu'il soit frequemment proféré. (ibid. 302)*

This argument applies to social transactions as much as to sacrifice. Certainly, in social transactions *alter* is a real existent, viz. another human being or group of human beings. Yet this *alter* has one crucial transcendental[1] characteristic, namely that *ego* cannot control his will. In making a gift to *alter* we may feel that by the norm of reciprocity we ought to receive something in return, but we can never be sure that we will. Mediating elements used in social transactions therefore have an essential resemblance to sacrifices. They are real existents which are believed to have 'virtue', i.e. to elicit a desired social return, if given to certain classes of partners in certain circumstances. The purpose of the present investigation is to determine why beliefs in the 'virtue' of various objects of mediation are held among the Orokaiva.

It is readily admitted that the system I am studying here is *'un discours particulier, et dénué de bon sens'* and that it does not provide a classifactory scheme representing the universe. It merits the term 'system' only because each exchange cycle forms a system and success or failure in the use of objects of mediation is advanced by Orokaiva as an explanation of a great variety of interconnected event-structures in time. I shall return to these theoretical questions in the introduction to chapter VIII. It will be useful first to survey some of the more elementary Orokaiva magical recipes for effecting social exchange by means of gifts of land, taro and pigs.

2. *Land and its Transfer: Transactions between the Sexes*

● 423 171 The first object to be considered is land. A kind of standard profile of the general characteristics of New Guinea land tenure has already emerged from the writings of Berndt, Brookfield and Brown, Hogbin, Lawrence, Meggitt, Rappaport, 423 Salisbury, Serpenti, Wagner and several others. The Orokaiva system falls 171 within this general pattern, though with less emphasis on overriding rights held by clan and lineage, and more emphasis on individual rights than, for instance among the Siane and Mae Enga, less emphasis on corporate leadership than among the Garia, and more incidence of duality of rights than among the Chimbu, and so forth. Though the time has come when a comparative study of these systems could profitably be undertaken, it falls outside my present purpose which is to analyse the significance of land transactions, especially among the Orokaiva.

In order to carry out this analysis, we must first describe the basic categories 423 of land transactions. We shall not use the term 'transactions' solely in a legal and economic sense, but more broadly in accordance with Mauss' concept of 437 exchange as a total phenomenon. Thus, land enters crucially in 'transactions' 121 between husbands and wives, and between men and spirits, and these 'transactions' will be considered before we turn to the more familiar topic of transactions between men. Here we have to distinguish between transactions within and outside the patrilineage. Our general argument will be that all of them occur as part of a continuing series of social exchanges, and that useholds granted on varying conditions must be regarded basically as benefits exchanged for other past or future benefits. In as much as paternal protection and filial service are very common objects of social exchange in these transactions, paternal protection being mediated by land grants, we may observe the practical operation of a system of patrifiliation.

A few words should first be said about the significance of land itself. The 423 Orokaiva spend most of their days in their individual garden plots. They are tied 241 to them not only by a total dependence on the produce, but also by deep bonds of affection. A man and his wife like nothing better, generally, than to spend the 362 whole day, and virtually every day, in their garden together. These are intimate places where nobody would go without an invitation and where nobody is disturbed or called away except in a serious emergency. They are the most private places the Orokaiva has, much more private than the village houses where every sound and movement can be seen or overheard. Even so, physical privacy is secured often by no more than a narrow ring of second growth around the cultivations. Many people have a garden house, ornamental shrubs, places to rest and sit. Orokaiva gardens can be very homely and beautiful. People rest there in the heat of the day. They are favourite places for love-making. [833]

The most ubiquitous of all social transactions mediated by the land occur between husband and wife. Perhaps the most important rights and obligations 581 arising out of marriage have to do with garden land. Both the male and female 423 gardening tasks are, of course, learnt before marriage. Bachelors have their own 241 gardens in which they do all the work which is not specifically set aside for [462] women and taboo to men. They clear the land; they help with planting (using the digging stick); they protect the land against pigs and other dangers; they [412] weed. It is a fact, already observed by Williams, that a girl choosing a husband takes serious account of the state of the garden of her intended spouse. She does not like to marry a man whose garden is in a poor state. The bachelor is assisted by a sister, or brother's wife, or by his mother with the dropping of seed into the

423 ground, and with harvesting, which he may not do. Upon marriage, the new wife
is usually expected to garden on her husband's land. There is a fiction that, at
241 the time of marriage, she 'does not know' the work she is expected to do on the
[581] land of her new affines. Her mother-in-law has to instruct her and it is only after
[585] such an apprenticeship that her husband's people consider her competent to
tend taro on their land, harvest it and offer it to visitors in proper style. She
would usually have been trained in these tasks by the women of her own clan,
but the subtleties of family traditions differ.

423 As against these male and female obligations, we may note some clearcut
593 rights: the man's right to his wife's labour and the wife's equally important right
of unlimited access to the husband's garden land and to its produce. This right
241 extends not only to harvesting food for the household, but also for gifts she may
choose to make outside the household, providing that she manages the food
[578] supply so as to avoid shortages. A domestic dispute I observed in Sivepe
[586] (referred to in Chapter III above) illustrates the importance attached to this
married woman's right. When this dispute was adjudicated, the 'explanation' of
the breakdown of the marriage was found in a single incident, namely the
husband's instruction to his wife not to go to his garden again. Here, in the view
of everyone present, lay the 'root' of the trouble, a judgement with which the
husband was willing to agree. This prohibition to go to his garden is one of the
few things a husband is on no account to utter to his wife; it amounts to total
repudiation of the conjugal relationship.

[431] This brief discussion of social practices has already indicated that a garden
plot is a gift made by a man to a woman, while the productiveness of the land is
[462] a gift from a woman to a man (because a man can neither plant nor harvest). Let
us now consider to what extent the nature of these gifts may be clarified in the
423 light of rituals, myths and indigenous explanations. It will be best to begin with
some legal ideas about land. As has been pointed out by Salisbury (1962: 67ff.)
241 among others, several sets of rights arise with respect to any one piece of land:
rights of the village, of the clan, of the lineage, and of the 'father of the ground'
or trustee. It is the last-mentioned person who assigns a piece of land (*enda*) to a
cultivator for the purpose of making a garden (*pure*). The cultivator to whom
[562] land may be assigned may be either male or female. Among the Orokaiva it is
[462] common for women to have land assigned to them for cultivation in their own
right, even though most land is assigned to males. They receive this land mostly
from a father or brother, sometimes from their mother. When a woman wishes
to have a garden established on her land, she (voluntarily) transfers the land to
her husband or another male on a temporary basis so that he can carry out the
[789] crucial male tasks without which the garden cannot be made. These tasks are
ritual as well as productive. It is common for the men of a clan to hold a feast
together and to kill a pig from which they eat and obtain strength (*ivo*), before
clearing new ground. The fertility of the soil depends greatly on getting a good
burn after clearing, and a good burn depends on climatic conditions that can
never be wholly predicted. I was unable to find out much about the ritual
connected with clearing but gather it had to do with control over the sun and
[775] the rain. Another magical danger that arises in new gardens comes from the
ghosts (*sovai*) lurking in the reverted gardens or bush that is being cleared. The
garden thus established is the gift made by the man to the woman; the *pure* is

felt to be a feminine thing. In the myths it is the mother who buries the taro 423
shoots (her children) and covers them with leaves and earth which are equated 241
with her body. I shall show this in more detail in the next chapter. [773]

In Williams' report on the division of labour, planting is shown as a female [773]
task, whereas the time studies of Waddell and Krinks suggest that the activity is [462]
actually shared by the couple. There is no real contradiction here, nor much
evidence of change, as the man's task is to pound holes into the soil with his
digging stick whereas the woman does the actual planting, or burying (*kovari*) of
the seed.

Unless the normal rules are suspended, as happens at feasting time, men do 241
not harvest taro or other products of the *pure* where taro is planted. (The rules [462]
are different for the yam garden as we shall see later.) The explanation that is
given of this rule is that only the women know how to harvest crops to best
advantage, i.e. at the right time and in the right quantities. If men harvested, the
supply would never last through the lean season. The woman is responsible for
nurture, in the widest sense. It is her task every day to bring home garden food [482]
in the large string bag suspended from her head. Contrary to what white
observers have sometimes believed, this is not a symbol of female slavery, but [562]
rather of female power and it is done proudly. When my wife started to bring
home produce from our own garden in Sivepe (in a different kind of bag), the
women crowded round excitedly and congratulated her. The food gifts that are [431]
constantly sent from one household to another may be, at least partly, regarded
as a display by the women of their own success. The products of the taro garden
(though not the yam garden) may ultimately be regarded as a gift from women
to men. We may summarise the total transaction as follows: 562

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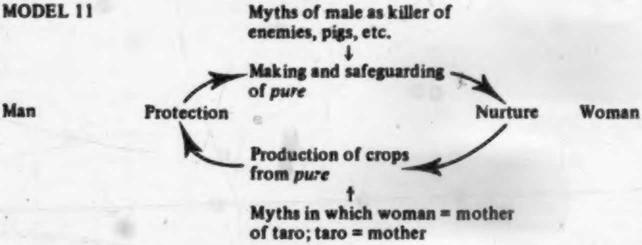
MODEL 11


Myths of male as killer of enemies, pigs, etc.
Making and safeguarding of *pure*
Man
Protection
Nurture
Woman
Production of crops from *pure*
Myths in which woman = mother of taro; taro = mother

On the basis of such a model, what precisely is the nature of 'rights' in land 423
enjoyed by husbands and wives? A simple analogy would be a jointly owned 593
machine of which one party controls all the bolts and the other controls all the
nuts. The assets of neither party have any value independently of the other.
Value can be created only by the co-operative *action* of screwing together bolts
and nuts. Land transactions between Orokaiva husbands and wives are similarly a
sequence of cumulative co-operative actions, such that each move by one party
calls forth an appropriate response. The only 'rights' are 'rights' to responses
once certain moves have been made. Legal disputes can in practice arise only if [578]

423 593 [578] one party fails to make the required response. It creates a wrong impression to speak of land being 'vested' in a man if all he has (independently of some woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

775 423 887 241 A second basic transaction mediated by the land is that between the soul of a recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

775 768 241 Crops from the garden cultivated by the deceased may not be eaten by any member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

775 851 774 Transmigration is affected by a ritual performed shortly after the birth of an infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

[753] The significance of this ritual became a little clearer to me through the case of

Why does man have this duty? According to the data I have presented, the 769
duty arises out of a promise made at the time of birth. The land is identified 775
with the ancestor who gave the infant its body. The cultivator works not only to
'survive' but also to repay to that ancestor the debt he has incurred by being 774
given a body. 241

These beliefs are relevant not only to land as a mediating element between
living and dead, but also between man and man. The religious system is 423
unconcerned with the consanguineous relationship between the living servitor
and the spirit of the dead. It is the service alone that counts, while the capacity
to provide the service rests on no more than the authorised occupancy of land.
The implication for land transactions between men is that such transactions can
never be purely economic.

In the present instance Jarata's brother, in lending his plot to a classificatory
brother-in-law, simultaneously passed over the duty to care for the spirit of his
dead brother, whose spirit resided on that plot. This is especially interesting as [614]
that affine (and his son Jarata (2), if he had lived) belonged to a clan different
from the spirit's. Thus, on a religious level, there is no recognition of a clan's
'right' to certain land, but only of a sequence of cumulative co-operative acts
between man and spirit, such that each move by one party calls forth an
appropriate move in response. We shall now turn to the social aspect of these
transactions, i.e. the conditions upon which authorised occupancy is granted.

4. *Transfer of Useholds between Agnates*

In suggesting that land transfers should be studied as social rather than as 423
economic transactions, we may meet with the initial objection that land 425
transfers occur in response to economic needs and are adequately explained
without introducing social considerations. But among the Orokaiva, there are
many land transfers for which an economic explanation would in practice be
hard to find. Certainly there are cases where land is transferred to a household
notably short of land, but I know of more cases where the purpose of transfer
was to have the company of a good friend on a neighbouring plot and other
cases where the only discernible purpose was to make a gift and strengthen a
social bond. Crocombe and Rimoldi have recorded a large number of land
transfers in Inonda and Sivepe, a large proportion of which were outside the
extended family and even outside the lineage. By no means all of these were
redistributions to help the deprived. Many were mainly for the sake of
strengthening sociability. It is therefore reasonable to inquire into the
significance of land in the mediation of social relationships.

We may, first of all, divide these transfers into two broad types: those 423
occurring within corporate groups, and those occurring outside them. In a strict 425
unilineal system, it would be possible to draw a land map showing areas owned
by a lineage, and if the system were segmentary, one might speak of a clan 611
domain, a tribal domain and so forth. Such boundaries would theoretically
remain unchanged in perpetuity as each generation inherited holdings in the
patriline or matriline. No New Guinea system of which we have a recent
professional description approximates even remotely to such a model, at least in
practice, as we find that many land holdings in so-called patrilineal groups pass
into the hands of uterine kin and affines. Among the Orokaiva the departures

423 from a patrilineal norm are so frequent that it is unusual for any man to hold
425 precisely the same blocks as his father who was *enda mama* before him. Nor do
clan boundaries and village boundaries remain unchanged for any length of time.
611 In themselves, such departures from patrilineal ideology do not in the least reduce the usefulness of a descent model for the explanation of Orokaiva land tenure, providing that we can plausibly regard all departures from the patrilineal rule as random responses to the vicissitudes of life. In the past, some New Guinea ethnographers have proceeded from this assumption, whereas others (e.g. Lawrence 1967) were willing to recognise structural regularities in the transfer of land to persons other than agnates:

> The potential social relationships which can be deduced from titles to land are of great theoretical importance. They represent an interlocking system of rights and obligations which can reinforce purely biological relationships (those of kinship and descent) within the security circle. (Lawrence 1967:114)

428 The first question that needs to be resolved, in the case of the Orokaiva, is
whether there is really a *rule* enjoining a man to leave his land to his sons (if he
423 has any). I found the rule to be much more ambiguous. If a man has sons, he is
425 expected to leave them *at least half* his land, but he is free to dispose of the other half to others – sisters, daughters, adopted children, for example. Thus a degree of freedom of disposition *is built into the Orokaiva system*. The many cases of non-patrilineal inheritance quoted by Rimoldi, and others I could add, are therefore not exceptions to a rule but the operation of a rule clearly stated by informants. In this discussion, I shall first show on a purely empirical basis that some land transfers are explained by a principle of descent and others on the principle of what Lawrence calls reinforcement of relationships within the security circle. Next, I shall investigate how far the transactional model developed above can provide a principle of higher generality which will sufficiently explain *all* land transfers, patrilineal and other. In the present section I shall concentrate on transfers within the patrilineage.

596 We have seen earlier in this discussion that the obligation to 'look after' a plot
423 of land formally arises out of an arrangement between an individual (a newly
born child) and an ancestor. In practice, however, the ultimate responsibility
[554] falls on the head of the extended family, the 'father of the ground' (*enda
mama*). This *enda mama* inherits his title from his father or elder brother who
died before him. If he has sisters, younger brothers, children or grandchildren, all
[769] these will regard him as *enda mama*. Thus, the death of an individual will not affect the performance of the obligation to ancestors living on the land, as the *enda mama* will either discharge these obligations himself or appoint some other occupier to carry them out.

596 Politically, the *enda mama* acts as leader of his group both externally and internally. In external disputes he champions members of his group against the claims of outsiders. This role is an exceedingly important one and many examples are given where a young man who had a perfectly valid claim to land
could not take possession of it because he had nobody to 'speak for him'. (His
[627] father was dead.) Internally, in conflicts between members of the extended
family, the word of the *enda mama* is final. Nobody outside the family can

intervene, nor can juniors overrule the *enda mama*. In theory, a man who will 596
not accept the decision of the *enda mama* has no option but to leave the village
and forfeit his patrimony.

Economically, the *enda mama* is theoretically in full control of all products
of the soil and of all resources owned by his family. He also has full control over [423]
the allocation of land to family members and others, with the proviso that his [428]
sons, if any, should get at least 'half' of the land when he dies.

In summary, the religious, political and economic attributes of the extended
family enable us to describe it undoubtedly as a corporate group. It has to be 596
recognised, however, that the parcels of land controlled by this corporation vary 613
considerably from generation to generation. A corporation will shed parcels [423]
which are permanently vested in other lineages, and will obtain new parcels from [425]
uterine kin and others. Plant (n.d.), Belshaw (1951), Crocombe and Hogbin
(1963) have all treated this land corporation as comprising a 'lineage', so that it
may seem idiosyncratic that I am calling it an 'extended family'. My reason for
changing the description is that I was unable to find any case of an extended
family lacking an *enda mama*. There are, of course, lineages comprising more
than one extended family, but in such cases one finds more than one *enda
mama*. Crocombe and Hogbin, faced with this phenomenon, added the term
'sub-lineage' to their pyramid of segmentary patrilineal groupings, but their small
sample contains no case of a 'sub-lineage' comprising more than one extended
family. In these circumstances we may well delay discussion of the range of
control of the *enda mama* until we examine patrilineal ideology in Chapter X.

We notice, however, an apparent conflict between patrilineal ideology and 596
practice. According to the ideology, an Orokaiva patrimony is passed on from an 423
enda mama to his successor; there is no rule for splitting up the patrimony 425
between the sons of a deceased *enda mama*. How does it come about, then, that
every extended family has its own *enda mama*? The process is easy to describe. [428]
It is customary for an *enda mama* to allocate land to all married men of his
extended family on a more or less permanent basis. He has the right to change
these allocations when special circumstances arise but changes do not occur
often. As the *enda mama* becomes older, and less able to make his own gardens,
he tends to distribute more and more plots, either to his sons or to other persons
of his choice. Though the patrimony remains undivided in theory, in practice it
is being divided. In this subdivision, the rights of brothers are supposed to be
equal regardless of seniority.

When the older brother dies, the position of *enda mama* passes to the younger 596
brother. The sons of the elder brother then retain no rights of succession and 428
will depend for their well-being on the new *enda mama*, their uncle, who often
adopts them if they are young. If the younger brother dies, and there are no
other brothers left, the younger brother's eldest son becomes *enda mama*. The
custom in such cases seems to be that the portion of the original patrimony set
aside for the elder brother should go to the sons of the elder brother; the portion
set aside for the younger brother should go to the sons of the latter.
Theoretically the eldest son of the younger brother would be *enda mama* over
the entire original patrimony but in practice a gradual splitting up would be
inevitable. Orokaiva do not easily accept the authority of their cousins or
adoptive brothers.

596 428 [775] In any case, there are no strong economic or political reasons to prevent the splitting of the patrimony. Nor are there religious reasons, because every married male is fully competent to carry out ritual in the garden he is cultivating. The Orokaiva do not have primogeniture in the sense intended by Raglan (1963:100); it is not in the *enda mama* that the spirits of the ancestors are reincarnated, but in all the individuals of the extended family. The *enda mama*, therefore, is not the sole channel of charisma, but rather a kind of revered manager. He usually contrives to keep the patrimony together through the respect and obedience that is due, in Orokaiva custom, to a father and elder brother. I know of several instances where this authority was challenged and found that, in practice, the sons of younger brothers were not cut out of the patrimony, but their share was cut out and the relationship was severed.

596 578 593 Informants were all agreed that at any time either the *enda mama* or the junior member of a land-holding corporation may opt out of the relationship: such a separation involves, first of all, the breaking down of a social relationship in which protection is exchanged for deference and obedience. Therefore such a breakdown involves a high cost for both partners. When I inquired into some breakdowns that actually happened at Sivepe, I was given two kinds of explanation: (*a*) the senior partner broke off the relationship because he was not obeyed; (*b*) the junior partner broke off the relationship because the senior 'did not look after the land properly'. The first kind of explanation suggests that the elder partner, not receiving obedience, no longer received any rewards from the relationship and therefore terminated it. The second kind of explanation is more obscure as I never could find out just *how* the seniors had failed to protect the land. I gather there had been bad harvests, that the juniors thought something was wrong with the land, or that the senior had done something to provoke sorcery which endangered all the land of his lineage. Whatever the details, the juniors felt that the cost of deference to their elder brother was no longer warranted, in view of the amount of 'protection' they received. There was no fear, in any of these cases, that such a separation would be followed by retribution, physical, magical or supernatural. As I showed in Chapter III, the Orokaiva accepts fraternal strife as a natural consequence of events in primal time.

596 613 423 571 When such separations occur within a three-generation extended family, they are regarded by the community as (minor) misfortunes. On the other hand, they are regarded as normal when they occur between first cousins in a four- or five-generation lineage. Implicit in such judgements is a notion that there is a lower and an upper limit to the useful size of corporate groups. The young man who loses land rights because he has nobody to 'speak for him', obviously needs incorporation in a group. The secure man in middle age who has his land interests cut out of the control of the *enda mama* obviously feels that the useful upper limit of the corporate group has been exceeded. We may express the transactions at the lower and upper limit of the useful size of groups in the following exchange cycles:

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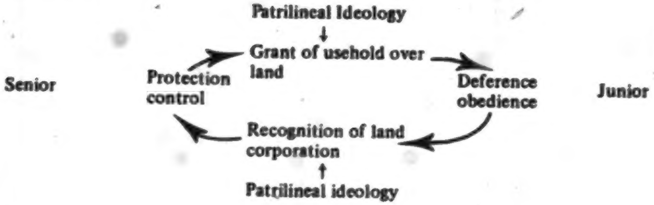
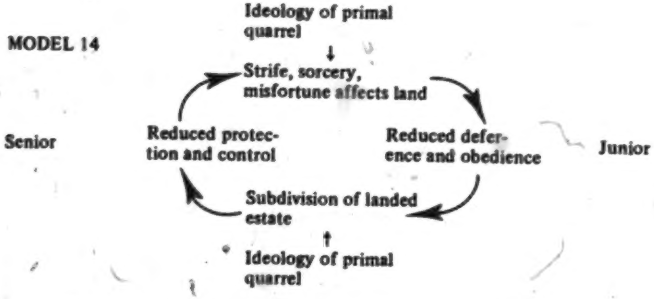
MODEL 13

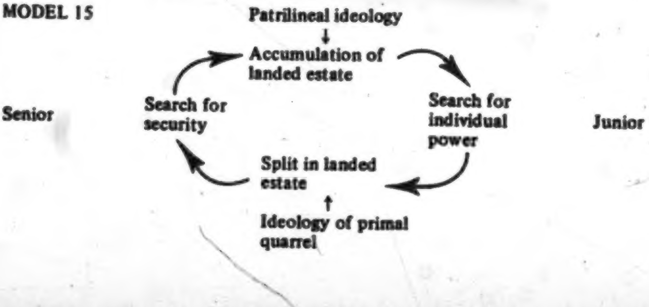

Patrilineal Ideology
Grant of usehold over land
Senior
Protection control
Deference obedience
Junior
Recognition of land corporation
Patrilineal ideology

MODEL 14


Ideology of primal quarrel
Strife, sorcery, misfortune affects land
Senior
Reduced protection and control
Reduced deference and obedience
Junior
Subdivision of landed estate
Ideology of primal quarrel

Models 13 and 14, when considered together, represent two phases of the history of a family. In the first phase a man who has separated out, aided by his sons, establishes his own landed estate. Gradually, he adds to his estate in various ways (conquest, inheritance from maternal relatives, etc.) and he adds to the number of adherents to whom he is *enda mama*. Before two generations have elapsed, the estate thus established will probably be subdivided again. The process of incorporation and subdivision repeats itself *ad infinitum*, and may be expressed in the following cycle:

MODEL 15


Patrilineal ideology
Accumulation of landed estate
Senior
Search for security
Search for individual power
Junior
Split in landed estate
Ideology of primal quarrel

613 Previous research such as that of Rimoldi (1966) has shown clearly enough
that the Orokaiva patrilineage is not *in practice* an enduring corporate group.
The model I am proposing here goes further: it states a rule according to which
[428] patrimonies are fragmented and the fragments constituted into new units. It
follows from this rule that neither lineage membership nor the principle of
patrifiliation (cf. Barnes 1962, 1967) suffices to account for the inheritance of
landed estates.

596 The basic condition for inheritance is that there should be a continuing filial
428 or quasi-filial relation, usually based on co-residence and filial services, thus
inducing the *enda mama* to make an appropriate response and continue the
protection of the real or fictive junior, as symbolised by the transfer of land,
often in gradual steps during the *enda mama's* lifetime.

Having shown that patrifiliation is not a sufficient condition for land inheritance, we shall proceed in the next section to show that it is also not a necessary condition. This argument will be followed by an exposition of an alternative model based on the principle of exchange.

5. *Transfers of Land outside the Corporate Group*

423 The land transfers so far discussed were conducted between agnates and largely
425 prescribed by rules of inheritance. We have seen that there is some freedom of
disposition, as the father is not obliged to transmit more than half of his land to
[428] his sons. His freedom is even greater if he has no resident sons or brothers. Even
a man with many sons and brothers, and with only limited land holdings, is not
prevented from making occasional land transfers, though these are more likely to
be on only a temporary basis.

423 The extent of known transfers outside the rules of patrilineal succession has
been recorded for the villages of Sivepe and Inonda. In Sivepe more than half of
425 104 parcels of land belonging to the Jegase clan have been so transferred
613 (Rimoldi 1966:59) whereas only 15 out of 34 gardens investigated were planted
614 by primary members of the right-holding lineage (*ibid.*: 70). In Inonda, the
proportion was 20 out of 55 (Crocombe and Hogbin 1963:34). Recipients were
sometimes members of the same clan but of a different lineage: sometimes they
were members of another clan. The whole of the land now occupied by the
Andiriha clan of Inonda was donated by the Tandai'undi of Seva in 1915, when
they were affines.

Most of these transfers were made to sisters and daughters of the *enda mama*
423 and, by implication, to the men who had married these women. They were most
425 commonly full sisters and full daughters, but there are many cases involving
583 classificatory and adoptive relationships. The making of such gifts depends
partly on inclination; a man who greatly dislikes his son-in-law will not settle
land on him. If the daughter marries outside a radius of about three miles from
the home village, she usually receives no land. Many women who marry in a
[593] neighbouring village receive land close to the boundary. The popular explanation
of such gifts is the deep love between a man and his sister (or his daughter).
[582] There is, however, another consideration which may have encouraged these
transfers: the Orokaiva practised preferential patrilateral cross-cousin marriage, so
that a village which allowed a woman to cultivate land, while married in an

adjoining village, might receive land at a later date when that woman's daughter 423
married, according to the rule, in her mother's home village. This kind of pattern 425
is described by Hogbin (1967:24) for the Wogeo, who operate a system of land 583
dowries in conjunction with second-degree patrilateral cross-cousin marriage. 582

Often land is granted, on a temporary or even life-long basis, to persons other
than sisters or daughters. Land transfers may arise in a variety of social
relationships which cannot be easily categorised. In Inonda, where the village 423
domain is rather large, land is often lent by one lineage to another so that 425
cultivation areas can be close together or contiguous. This is done because [613]
people like to work at not too great a distance from one another. In Sivepe,
some land loans were made from a similar motive, mostly for rubber gardens.
When migrants from Garombi[2] settled in Sivepe, several grants of land were [166]
made to them, both for taro and yam gardens. Such arrangements do not usually
extend beyond the life time of the recipient although I do know of exceptions.
If the gift endures, it signifies a close and permanent bond between families who [571]
may be unrelated by kinship.

From the viewpoint I have adopted in this work, two questions are of special 121
interest in the analysis of land transfers: what social benefits are being exchanged between the partners; and what are the symbolic motives for using land as an object of mediation in these relationships? In order to approach these questions, I shall first cite some situations in which land transfers are of practical use and common occurrence:

1. Land transfers from wife's father to daughter's husband used to be very 423
common, especially in the early years of marriage. A man was expected to help 583
his wife's father with gardening and other tasks, and to stay with him for a year
or so. During this period, the father-in-law gave the couple a garden for their 425
own use. On occasion, this might be a garden to which the daughter had been granted a permanent usehold. This type of bride-service is very much on the decline today, as the payment of a substantial bridewealth in money acts as a substitute. I encountered the custom once or twice and found that the
son-in-law regarded himself as the father-in-law's 'worker' or servant. We may [558]
therefore regard this type of land transfer as offering to the donor the satisfaction of seeing the receiver reduced in social status.

2. In the other types of cases I shall mention, transfers of land do not place 423
recipients in a position of social inferiority. Certainly, in many cases harvest gifts 431
are expected from the borrowers of land but these tend to be small in size and to 736
lack any implications of status difference. For instance, many transfers are made by widowers. These men have a choice between attaching themselves to the family of a son, a daughter or a sister's son. In Sivepe, I found that each of these choices was made twice in a total of six cases with which I am familiar. In all the cases where an old man attached himself to a daughter or sister's son, he made transfers of land to those who looked after him. The choice he makes is prompted primarily by mutual affection but nonetheless his position is greatly strengthened by the knowledge that he has some tangible way of showing his gratitude, namely in the form of land. If he is unhappy with one relative and moves to another, some part of his inheritance will probably move with him.

3. Cripples and widows are often in a similar position. They may need a

423 man to take responsibility while their sons are still too young. This man will
431 'look after' their land in an economic, political and religious sense and will restore
736 it to the son or sons when they come of age. But in the cases of which I have
knowledge, some land is likely to stay with the protector, who often becomes an heir of the widow or cripple.

423 4. In all the cases mentioned so far land is an object representing respectable status and exchangeable for services of a quasi-filial nature. The same
591 applies to most instances I know of uxorilocal marriage. Here it was usually the
583 wife's relatives who desired the husband to stay with them, whereas the latter had no pressing reasons to leave his home village. They were generous in their offers of land, and no sensible man would move without such inducement. After the eruption of Mount Lamington, the survivors of the Sangara tribe, greatly reduced in numbers, offered generous land portions, on a wholly permanent basis, to men who would marry uxorilocally. Widowers dependent on the care of their daughters will encourage uxorilocal marriage in the same way. (The frequency of uxorilocal marriage among the Orokaiva is between 5 and 10 per cent.) In these cases it is clear that land donors are motivated by the desire to attract the son-in-law, and that the son-in-law is motivated by pleasure at the status he will gain as symbolised by the land he is allowed to 'look after'.

423 5. A very similar motivation may be found for the land transfers made in Sivepe in 1966–7 to families who had migrated from neighbouring Garombi.
425 Seeking an increase in population, Sivepe leaders frequently encouraged dissident
166 minorities in some neighbouring villages to join them. When the Garombi people came, a good deal of effort was made to obligate them and attract their friendship and loyalty. Two men gave useholds over gardens and one man gave a usehold over three yam gardens. It is likely that there were other transfers as well, just before I left the field and afterwards. One of the men who received a taro garden started using the donor's plant emblem when working in that garden, thus emphasising the closeness of the bond with the donor's family, as plant emblems are normally transmitted only by descent. Here the donors were motivated by a desire to attach the immigrants more closely to themselves, and the recipients gave friendship and loyalty in return. Here, as in uxorilocal residence, the migrants' willingness to settle in the village was itself treated as a benefit bestowed upon the local people by the migrants.

423 6. As already mentioned, the transfer of land to sisters and daughters is very common. It is the rule that, in the absence of brothers and sons, sisters and
428 daughters should inherit land in preference to second degree kin. I know of
425 several instances where absent brothers and sons were overlooked in favour of sisters and daughters resident in the village. Even if brothers and sons are living in the village, some land may be transferred to females. This will occur especially if a daughter's or sister's husband is known to be short of gardening land. In addition, it may occur for the kind of reasons given by Lawrence in his discussion of land transfers among the Garia, i.e. the enhanced status gained by the mother's brother when he acquires a junior follower strongly dependent on
[554] him. Among the Orokaiva where the majority of people marry close to home, a man's generosity to his sister may yield him quite a number of loyal supporters if the sister happened to have many children.

423 7. Land is sometimes made available by an individual *enda mama* for a
621
431

5: Schwimmer E-4,5 (1966-1967) 1973
OJ23 Orokaiva OJ23
Mountain Orokaiva

community purpose. Whenever a new village is built it is necessary for some 423
individual to give garden land. Often several individuals give a piece each, but 621
such a gift does not entitle the donor to decide just who should live on each 431
house site, nor to control in detail what residents do with their housing sites.
Trees planted by householders remain theirs in perpetuity. Such gifts to the [554]
community are not balanced by any specific reciprocal gifts or services, but the donors benefit by the contiguity of the village to their gardening land and perhaps, in a diffuse way, they benefit in social and religious status. Similar gifts have also been made in recent times for co-operative cash-cropping ventures, such as rice-growing in the late 1940s and a recent rubber co-operative in Sivepe. Here again, the total 'company' land was contributed by a number of people, some of whom shared out parcels to persons interested in planting rubber trees. In such cases, donors told me they acted for the good of the community, and everybody emphasised that the recipients incurred no obligation.

Let us now summarise briefly what social benefits are being exchanged 423
between partners in land transactions. Frequent as they are, voluntary land 425
transfers are always treated, in ideological statements, as departures from a 571
regular and more secure patrilineal pattern. It is a though a maternal uncle or
affine or distant agnate has voluntarily assumed the role of fictional father of the borrower. One receives a benefit which, in the 'normal' state of affairs, would be given only to a younger brother or son. I do not know of cases where long-term borrowing of land in itself sufficed to induce a man to change his clan affiliation, as seems to happen among the Garia. In one case I quoted, a man adopted the lender's plant emblem, thus emphasising the element of fictional fatherhood. Other informants regarded this as entirely proper and highly sympathetic behaviour, though totally voluntary. Harvest gifts, however, were not wholly voluntary but expected. So was a certain filial attitude of loyalty, obligatory avoidance of quarrels, and willingness to perform supportive services. Only in the case of a son-in-law performing bride service did such an obligation place the borrower in a servant-like position. On the contrary, in most of the cases I quoted it was the lender who felt the stronger need to attract the borrower and enter into a closer relationship with him. For instance, the donor would often have a strong desire for a reliable military and political alliance with the borrower. If supportive familial services were needed, as in the case of old men and widowers, these services were not provided in repayment for land, but in fulfilment of a kinship-determined social obligation. By making a gift of land, the donor was doing no more than express his quasi-paternal sentiments.

We may conclude that, strictly, land is hardly ever an 'object of exchange', in 423
that one cannot suggest any specific major counter-gift or counter-service which 437
could be used to reciprocate. Allegiance and protection, benefits which the
land-borrower usually does furnish, cannot be bought with land. They may be 571
given as a response to quasi-paternal support and the enhancement of economic, social and ritual status. Social benefits of this kind are regularly exchanged
between non-agnates. In fact, it may be said that it is from social exchanges of [182]
this kind between non-agnates that Orokaiva society derives its cohesion or, to use Lawrence's phrase, maintains its security circle.

Why is land appropriate as a mediating object in such exchanges of social 423
431
571

423 431 571 [769] benefits between non-agnates? One might answer this question in a preliminary way by saying that land is the only valuable permanent economic asset the Orokaiva have at their disposal for the making of gifts to relatives and close kin. Such gifts, apart from their economic significance, buttress social relationships both inside and outside the clan. The recipient is induced to maintain or assume a filial attitude towards the donor, with all the political implications this may have; a requirement evident not only from the social responsibilities he is apt to accept but also from the magico-religious care he must take of the spirit (ancestor of the donor) resident on the land.

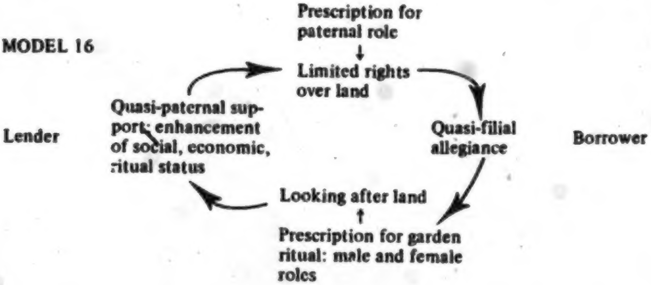
423 431 593 Land gifts made to non-agnates should be considered not solely from the viewpoint of sentiment, but also of their social consequence. When gifts are made to a sister or daughter, the husband or son or the recipient must subsequently, in regular daily practice, show increased allegiance to her family. The *enda mama* of that land has become, in some ways, similar to a true father. The recipient is made to feel, however gently, that he is a dependent. Furthermore, it is a situation which it behoves him to manipulate; his rights are always ultimately uncertain. He must try to tighten his hold over the land, and in the end he can do this only by making himself loved, indispensable and redoubtable in the eyes of his maternal family.

423 425 The key to the significance of land in mediating relationships of this type lies in the continuing doubt as to the permanence of the land transfer. At the outset it is often for a single growing season. Sometimes a man is told that he may keep the land as long as he resides in the village, or for his lifetime. But in practice his tenure depends on the course of his relationship with the donor. He may even be told that the land will be his permanently, though this is commonly only when he is the original owner's sister's or daughter's son. Such a promise of permanent occupancy, however, is never tantamount to ownership. In the next section we shall show that it remains hazardous and unwise to grow cash crops such as coffee on land given by the maternal family as long as fifty years previously, because even after this long interval claims can be made for the return of the land or of the proceeds from the crop. Thus a man has to pay very special respect to his maternal family and have regard to its wishes, if he desires continued enjoyment of the land. No other type of gift could do so much to ensure that he will feel a dual allegiance to both his paternal and maternal family.

We may summarise this relationship with the maternal family, for successful cases, in the following diagram. It will be noted that this diagram is basically similar to model 13, but there are significant differences in benefits exchanged: a maternal relative has no 'control' over the land-borrower, nor does the latter owe him any 'obedience'. Conversely, the land is not unconditionally available to further the best interests of the useholder's paternal family.

423
425

MODEL 16


Prescription for paternal role
Limited rights over land
Lender
Quasi-paternal support; enhancement of social, economic, ritual status
Quasi-filial allegiance
Borrower
Looking after land
Prescription for garden ritual: male and female roles

6. *Case Study of Uterine Land Inheritance*

If a person resides at too great a distance to make gardens on his land, he commonly passes it on to a suitable kinsman to be 'looked after', which means the establishment of gardens on it at regular intervals and the performance of religious rites. After a decent interval (perhaps twenty years), the caretakers will begin to press for a permanent arrangement: does the owner intend to return or will he pass over his land permanently to a resident? It is possible to stall on such a decision for a long time, but even if the owner's rights have the strongest basis, viz. patrilineal inheritance, they gradually become more tenuous and the man who looks after the land increasingly becomes the real master. Theoretically, [428] however, the right to patrimony land is never extinguished. At the same time, a land gift to a sister or daughter is often made on the basis that when the land [431] passes to her male heir he will be able to keep it permanently for his descendants. The formal rules on this point are flagrantly contradictory. If we wish to understand the principles behind uterine land inheritance, our most useful course will be to consider how the system operates in a concrete case.

The data I shall discuss here were reported in Crocombe's and Hogbin's study 614 of Inonda (1963) and supplemented in a brief study by myself. A leading man 423 from Tandai'undi clan (Seva village) gave most of the present Inonda domain to a leading man of Andiriha clan. The Andiriha made various gifts at that time 425 (1915) and also gave Tandai'undi two women in marriage. In the following [583] generation Tandai'undi, according to the custom (of patrilateral cross-cousin [582] marriage), gave two women in exchange to Andiriha, or to be precise, to the son of the donor of the original two women. It was then promised that the son of the elder of these two women would assume control and be permitted to pass on this land to his heirs.

In the 1950s several incidents occurred which emphasised the limitations of the rights of Andiriha. When some Tandai'undi were dismissed from a construction job (by a European overseer), they went to Inonda village where the foreman, an Andiriha, lived. They reminded the foreman that Inonda was 'their' land and that if he wanted to remain on it he had better get them their jobs back (Crocombe and Hogbin (1963: 72). As I have pointed out, a land borrower always has a duty to protect the interests of the lender and this

614 protection was now demanded on pain of eviction. Around the same time, coffee
423 was being introduced in Inonda as a cash crop, but none of this was planted on
Tandai'undi land. Three men who had land derived from a different source
425 planted coffee there in 1955 but the other families who had only Tandai'undi
[422] land had planted none as late as 1967. They feared that if they did, there would
[245] be trouble with the Tandai'undi.

There are many examples in other parts of Orokaiva territory to show that
these fears were fully justified. To confine myself to Sivepe, where my data are
most detailed, I found that although more than half the land was occupied by
423 rights other than patrimony only two out of fourteen coffee gardens were
422 established on such land. When I inquired into these two cases one grower
425 explained to me in careful detail that he had nothing to fear because the
mother's brother who gave him the land to 'look after' had absolutely no descendants, neither male nor female, nor any brothers and sisters. The other grower, who was occupying his wife's land, was in trouble already. His solution had been to plant a second coffee garden and to promise he would relinquish the first when the second began to bear. The other twelve growers all held the view that it is better to grow coffee on patrimony land.

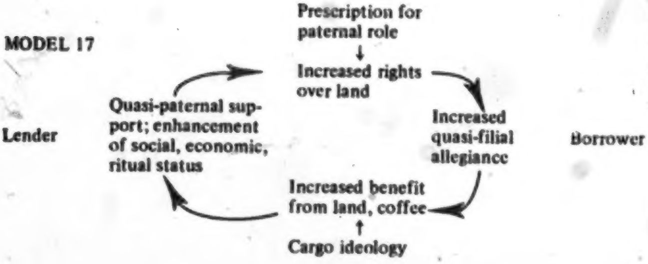
I know of only one case where the coffee-growing occupiers ignored the views of the holders of patrimony rights. This was in Mumuni where after some years of fruitless disputes the holders of the patrimony began to raid the coffee gardens. When the victims of these thefts asked my advice, I had to tell them that a Government Court could probably do nothing for them as I knew they had no legal title to the land.[3]

Under traditional Orokaiva law, the holders of the patrimony probably have a valid claim to cash crops. These crops may be viewed as an unforseeable increment in the value of the land transferred, an extraordinary stroke of luck. In Orokaiva religious thought, there can be only one explanation for such a stroke of luck, namely that it was given by the spirits dwelling on the land. As far as the Tandai'undi were concerned, their link with the spiritual essence of the land was still unbroken. The Andiriha were only caretakers. A perpetual gift of the land to the Andiriha does not mean to the Tandai'undi what it would mean to Europeans. Rather than a gift that is made once for all, it is a gift that is continuing to be made in perpetuity. As the function of this gift is to mediate a social transaction, it presupposes that the social transaction continues in perpetuity. If the value of the gift increases dramatically through unforeseen causes, the donors may no longer consider it appropriate for mediating this relationship, unless the rewards from the relationship also increase.

We may express this notion in the following diagram which is a modification of model 16:

423
422
425

MODEL 17


Prescription for paternal role
Increased rights over land
Increased quasi-filial allegiance
Borrower
Increased benefit from land, coffee
Cargo ideology
Quasi-paternal support; enhancement of social, economic, ritual status
Lender

The argument of the Tandai'undi and other owners of coffee-producing land is that the production of coffee gives the occupiers increased rights over land so that they owe an increased quasi-filial allegiance which must be expressed in increased prestations. These may take the form of substantial gifts, a share of the crop, etc. The benefit the owners seek to obtain from the land is nearly always money.

It may seem far-fetched that my model shows 'cargo ideology' as the 177
'mythological charter' for this desire for money. It may even be argued that the 436
desire for money requires no ideological explanation. Without entering upon this
larger question, I would directly relate the significance given to money in 776
Orokaiva ideology to what has been said in the previous chapter about Jesus 782
Christ as a *dema* figure. It is He who is credited with the introduction of money into the world and this is regarded as perhaps His greatest blessing. Hence the pursuit of money is not despised by Orokaiva nor even viewed as morally neutral: to acquire money is to give evidence of having followed the precepts of the *dema*. If the mysteries of the *dema* were more fully revealed to the Orokaiva, they believe they would acquire a great deal more money.[4]

I would argue that the Orokaiva regard the coffee industry as a premonition of 245
greater wealth and power that may later come as the result of the return of the 437
ancestors. Until the coffee industry started, Orokaiva could earn money only by 435
leaving their villages to work for white men. Suddenly it became possible to
obtain equivalent amounts from the products of village soil. What stirred the 436
imagination was that a man could go to his garden, pick the coffee and then, 177
after a not too demanding ritual of processing, pour it into a bag and obtain money for it. This was not classified as work but as a kind of magic. *Work* (the Pidgin English word) referred exclusively to paid labour done for an employer. *Pure* referred more specifically to the traditional gardens. *Kapi* (coffee) was what one might compare to a 'money tree': it was the source of the benefits which enabled a village family to share in the 'new day'.

From the cases I observed at Mumuni and Sivepe I gathered that some modest 423
proportion of the proceeds of the coffee garden (like a tithe) would not satisfy 425
the owners of the land upon which coffee was grown by useholders. They 422
seemed to want all, or nearly all, the cash that could be gathered from the bushes. It was because their claims were immoderate that I began to think of the influence of cargo ideology.

602 One might well regard such immoderate claims as the response to a
423 breakdown in the social exchange relationship. According to model 17, increased
rights over land should mediate an *increased* quasi-filial allegiance, implying an
425 increased willingness to aid and share with maternal relatives. Such, however,
[245] was rarely in evidence. On the contrary, most coffee-growers, engrossed in the
new task of growing coffee, tended to ease up on their family obligations, gave
[797] fewer feasts and were apt to neglect their maternal relatives. This was especially
so because Church influence reduced the scope of initiation ceremonial which is
[881] one of the traditional key functions of the maternal family. Certainly the
maternal family hardly shares at all, under normal circumstances, in the increased wealth generated by coffee-growing. Thus the uterine landowner feels relatively alienated from his affluent nephew.

614 In order to demonstrate the importance of quasi-filial allegiance as a factor in
423 land transactions, I shall cite one case, again from Inonda, where coffee gardens
are being run profitably on land over which the grower holds only 'permissive'
425 rights. The three coffee gardens established in 1955, and still harvested in 1967,
are on land owned by the Endehi'undi clan but relinquished after a defeat in
[435] war. It has been used by Andiriha of Inonda since 1915. When Inonda people
started to grow coffee, Endehi'undi reclaimed this land. Inonda paid $32 in cash, as well as pigs, traditional valuables and taro, in other words, a very substantial consideration (Crocombe and Hogbin *ibid.*: 73) After a few years, as Andiriha continued to benefit from the coffee, it became obvious that Endehi'undi did not regard this consideration as a *sale* price as Andiriha hoped they would do. They saw it as no more than a proper display of quasi-filial allegiance, and expected this sort of gesture to be repeated, or to recover the land.

[736] The Andiriha leader now invited a widower belonging to the Endehi'undi
group to move into his household. The invitation was accepted and in 1967 the old man was still there. There was no further trouble over the coffee although Andiriha did not tempt fate by making further plantings. By Orokaiva legal concepts, the balance was restored. By a shrewd manoeuvre, the Andiriha leader had found a way to offer increased quasi-filial allegiance in such a way that the profit from the coffee gardens was not reduced too much.

423 Instances of this kind help us to understand what was involved in the
425 Orokaiva system of residual or dual rights over land and dual allegiance owed by
individuals to different families from which land useholds are derived. We have
571 long tended to believe that the basic co-operating groups in primitive societies
are *corporate* groups. The Orokaiva data presented here show a second possibility: namely a system by which individuals derive their land, and therefore their sustenance, from a cluster of corporate groups in only one of which they are a corporate member, although they maintain permanent exchange relationships with the others. These other corporations do not make them permanent gifts but leave them conditional upon the successful continuation of the relationship. The fact that a man holds land on such terms *forces* him to continue the relationship.

It is impossible, therefore, to say just what constitute 'residual' rights in land. In the example I analysed, it appears that a group's rights include rights to coffee when it lives in another village, but not when a member of that group stays in the house of one of the growers and is fed by that grower's wife. Perhaps the best definition of 'residual rights' would be 'benefits that are claimed when the social exchange relationship has broken down'. They are a sanction applied to punish the loosening of quasi-filial allegiance. 423 425 571

The case of Inonda is atypical as the entire village domain is held under an arrangement derived from the ideology of exchange. A more frequent pattern is for an individual to own some blocks of land in virtue of more or less permanent gifts. In neither case does this land mediate sacred and indissoluble bonds. In the case of patrilineal inheritance, the individual violates no supernaturally sanctioned rule if he cuts himself loose from his *enda mama* (and often keeps his land). In the case of land gifts, he may also cut himself loose if bonds of affection and expediency weigh less with him than the cost of satisfying his donor. If he should break with his donor, there is likely to be theft, intrigue, sorcery and perhaps violence and it is quite unpredictable who will eventually occupy the land.

If a man has only gift land at his disposal, he is in an insecure position in his relations with his exchange partners. This seems to be the case in Inonda. If a man has only patrimony land, we may assume that he has no close bonds outside his extended family and lineage, as such close bonds would probably have led to offers of land. Such a person has too narrow a base of social support in the community to count for much, and to counter effectively challenges to his position and property that will be made from time to time.

7. *Conclusion*

It remains to be shown that the facts and analysis of land transactions illustrate the general principles set out at the beginning of this chapter. I have dealt with a series of social relationships in which one partner has a strong need to identify with the other, to maintain a stable and permanent bond and to obtain what the other has to give. This need was sometimes social, sometimes economic, sometimes emotional, sometimes religious. All these bonds depended heavily on land for their efficacy. 423 571

I have shown that a donor of land does not necessarily separate himself irrevocably from the land as such, but from the usehold of it and thus from the productivity of the land for a certain period. There are no return payments which can ordinarily compensate for the gift, the main purpose of which is to mediate a certain social relationship. The donor can never quite know in advance whether the gift will be efficacious, as the receiver of the land may not, in the end, make the social prestations for which the donor hopes. The receiver is usually someone from whom substantial social support, in one form or another, can be expected. The relationships arising in land transactions are therefore precisely those which my model was designed to interpret. 423 425 571

In the introduction to this chapter, I argued that a gift could be regarded as a 'mediating element', for the purpose of my analysis, only if there is identification between the donor and the mediating element. In the case of land, we have seen that the owner strongly identifies himself with the lineage spirits believed to be resident on the land. The land is a part of him, just as his ancestors are a part of him. By transferring the land to another person he causes that other person in turn to identify himself with the land. He is thus magically 423 425 775

423 imbued with the spirit of the donor and (ideally) compelled to behave as though
425 he owed the owner quasi-filial allegiance. This is a magical action of precisely the
775 kind I envisaged in the introduction to this chapter.

Finally, a transfer of land may be maintained indefinitely as long as, in the
donor's view, it has 'virtue', i.e. as long as it mediates the kind of relationship the
donor desires. But when the relationship breaks up, for one reason or another,
423 the owner desires to have his land returned to him. This is why 'residual rights'
425 on cash cropping land are so awkward. The modern age, the desire for money,
571 the commitment of productive effort outside the range of the security circle all
[178] tend to disrupt the relationships envisaged by the lender of land. Meanwhile,
modern political, judicial and administrative institutions have taken over many of
the functions of the old-time alliances which were bolstered by land gifts.

I have explained in detail why traditionally the Orokaiva considered land to have 'virtue' as a mediating element in their most intimate alliances. In particular it mediates the bonds between husband and wife, spirits and living, paternal, junior–senior agnates and maternal family, and between an indefinite category of close friends.

791 Land may also act as a mediating element in a negative exchange between a
sorcerer and a person who has aroused the anger of that sorcerer, as happens
789 when the former blights the crops of the latter by placing a curse on the land. In
423 many situations of this sort, events which we would class as metaphysical,
425 physiological or climatological are explained as arising out of social exchange.
Such beliefs tend to increase the importance attached to the maintenance of satisfactory social exchange relations because the averting of misfortune in the metaphysical, physiological and climatological realms is made conditional upon successful social relations.

577 The prosperity and opulence of the land thus becomes a measure of its owner's moral and spiritual wellbeing and the amity with which he is regarded by his fellow men. A good man is a good gardener: a good gardener is a good man. This equation is not arrived at by the Orokaiva with the aid of some Frazerian notion of contagion, but on the assumption that the good man has good exchange relations: therefore nobody would wish to harm his garden; therefore the garden must necessarily be in perfect condition. In this as in many other instances exchange is used as the *explicans* of what might well be explained in many other ways. It is because of such gratuitous use of exchange as *explicans* that I am inclined to regard it as a key concept in Orokaiva philosophy.

REFERENCES

000 1. I am using the term 'transcendental' in the sense of Schutz 1967 who demonstrates the transcendental expenses arising in social relationships.

2. For the location of Garombi, see Fig. 10.

3. These growers held certificates of title issued by the Higaturu Local Government Council, but these certificates have no legal force. I shall discuss in the next section of this chapter the pressures by which the Orokaiva are gradually being induced to establish sole titles.

4. Money as the means of salvation is a theme of many millennial cults, as is argued in detail by Burridge 1969 (*passim*, but see especially pp. 41–6).

by a consanguine of either side, the proper side being determined by a medicine 842
man (See Schwimmer 1969). The effect of this theory is that a woman belongs 614
to her clan in a less absolute sense than a man.

This theory of paternity may be explained teleologically as serving to 614
emphasise the rights and identity of the patriclan in a social system which 'very 423
nearly approaches' bilaterality. In Orokaiva society women very often receive a
portion of patrimony land. Their indulgent brothers frequently give lands to 428
their sister's children and such land may well pass into the hands of those
children's heirs. Currently, over 50 per cent of cultivated land is owned by 562
persons other than the cultivators, and very often the cultivator's useholds became perpetuated. Such perpetuation proceeds in spite of an explicit rule denying women hereditary rights to their patrimony useholds. The physiological reasoning by which Orokaiva women are denied full clan membership should therefore be interpreted as a symbolic statement insisting on the limits that should be placed upon uterine intrusion on clan property.

When Orokaiva informants are asked why women should not have hereditary rights over land, they usually give as the reason that a woman will marry into a strange clan and village so that it would be dangerous to give her children any rights. Such reasoning goes back to a time when the most frequent marriage forms were abduction and elopement. In practice, the fate of a woman's patrimony rights depends on where she marries: if she does marry in a friendly neighbouring village or by sister exchange, her children will probably keep her property. This is therefore the preferred feminine pattern. But if she is taken by a man from a strange village, her clan rights become precarious. We have already seen that this latter pattern of marriage is forced upon men not only by ecological contingencies but by the marriage rules themselves. Ideological devices to deny women full clan membership are consistent with this pattern. Such devices are inconsistent with restricted marriage exchange, because the latter system depends on the return of a woman's offspring to her natal clan as marriage partners in a later generation. In the Orokaiva system this is envisaged as only one of several structurally recognised possibilities.

8. *The Nature of Orokaiva Bridewealth*

The most convenient way of explaining the nature of Orokaiva bridewealth 583
payments (*dorobu*) is by contrasting them with certain types of African
bridewealth (*lobola*), as analysed by Lévi-Strauss.[2] Here the recipient applies the 171
gifts, wholly or in large part, to the immediate purchase of wives for himself or his family. *Lobola 'n'est recu que pour commencer, aussitôt, un nouveau circuit . . . Il ne sera jamais consommé, sauf, occasionellement et partiellement, à des fins sacrificielles. A peine reçu, il fera l'objet d'un remploi, sous la forme d'une épouse pour le frère ou le cousin de la jeune marié* (1967:536). Under such a system it could rightly be said that '*la femme fournie en contrepartie est remplacée par une valeur symbolique*' and that the wife-giving families received in return '*la garantie, sous forme de biens privilégiés, de trouver elles-mêmes des épouses*' (*ibid.* 540).

Papuan bridewealth objects, however, cannot generally be applied to the same 583
ends, or are not in practice generally so applied. The most important Orokaiva

group.(1) Group planting seems to have been the general pattern in other parts of the Territory too. In the Western District in particular, the Resident Magistrate initiated schemes for cash crop plantations being owned and operated by each village as a whole. Profits were to be used for projects which would be of benefit to the village community (P.A.R. 1913-14:12). About fifty such plantations were established under the scheme. 657 241 [423] [434]

During this post-war drive (and probably in 1920) a government officer assembled the people of the nine villages(2) of the northern branch of the Asigi tribe and instructed them to choose a site and plant an area of coconuts for the nine villages as a whole.(3) 657 245

A central site was chosen near Ongoho on land belonging to the Akute'undi sub-clan (most of the members of which lived in Ongoho village), and about 500 coconuts were planted as a community project by the men of the nine villages.(4) They were to be used exclusively for copra making (there were ample coconut trees in the villages for domestic use) and work and profits were to be shared equally among the able-bodied men. Small plots of rubber and citrus trees had been established at Ongoho under the same scheme a year or two earlier. The citrus was intended to be used primarily as a latex coagulant for the rubber, and only secondarily as a cash crop. 245 [249] [433]

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(1) In some instances in the coastal villages of the Northern District each individual planted his own trees, but all villagers planted in one "village" block on the land of one man or of one descent group.

(2) Ongoho, Hongorata, Ivisusu, Sowai, Weki, Ondahari, Oere, Girigirita and Heherita. Sowai and Weki were later abandoned and today their populations live together at a new village named Sotokoiari. Likewise Girigirita and Heherita have amalgamated and moved to a new site. The new village is called Girigirita. [361] [103]

(3) Data in this section of the report was collected by interview only in the villages concerned during April-May 1963. [124] [101]

(4) The annual reports show that in 1921 there were 518 coconut trees over five years old and 1,287 under five years old in the Asigi area. The nine villages listed above comprise about half of the total Asigi population. The 518 mature trees were probably those planted in the villages. Trees in the community block which did not survive were not replaced, and as the ground has not been cleared since the second world war, many have died. There were 198 trees still standing in 1963.

The Native Plantations Ordinance

In addition to the post-1918 drive for increased planting under the regulations a new policy was introduced with the dual aim of increasing village production and government revenue.(1) The old regulations had provided for compulsory planting only, but the new ordinance provided for continuous supervision and compulsory maintenance and harvesting of gardens, as well as processing and marketing facilities. Under the heading "Compulsory labour in the natives own interest", Sir Hubert Murray claimed that "the most obvious, and possibly the only solution is to encourage, or if necessary to compel, the native to work for his own benefit" (P. A. R. 1921-2 : 16). 657 466

The new policy was embodied in the Native Plantations Ordinance 1918 (and amendments)(2) which provided for the establishment of community plantations in which both the government and the villagers would participate. Profits were to be shared equally between the government and producers.(3) The Lieutenant-Governor was empowered to direct that any Crown land could be set aside as a Native Reserve for the purpose of establishing a plantation. Alternatively, with the consent of the land owners "whose property the land remains", plantations could be established on native land. 423 657 [434]

The earlier Native Regulations which provided for compulsory planting of cash crops were not repealed, but they seem to have been used much less after the new Ordinance became operative in the 1920's. 657 241

The available sources give little indication of the reasons for emphasis being placed on group plantations rather than individual plots, though Miles (1956 : 323) hazards the view that it facilitated control and inspection, and that the indigenous

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(1) For a discussion of the emphasis on raising government revenue see Mair 1948 : 88.

(2) The Ordinance of 1918 was subsequently superceded by the Native Plantations Ordinance 1925-52, extracts from which are contained in Appendix E.

(3) The Ordinance prescribed that "half or any other proportion" of the crop was to belong to the villagers. In practice villagers were paid half the takings.

241 657 people probably preferred it anyway. He gives no evidence for the latter assertion. It seems equally possible that officials of the day considered the Papuan people to be "naturally" adapted to communal patterns of work.

The first action to implement the ordinance in the Northern District was taken in 1921 and 1922 when inspections were made by officials "with a view to plantations being established of such economic plants as will suit the soil and promise a profitable return" (P. A. R. 1921-2 : 23). Similar action was taken in parts of the Central, Milne Bay and Gulf Districts at the same time.

Acquisition of land

657 423 In 1921 the Crown began to purchase lands under the Lands Ordinance 1911-22 and to declare them under the Native Plantations Ordinance, as Native Reserves set aside for the purpose of Native Plantations. Between 1921 and 1925, 38 such plantations were declared in Papua (33 of them in 1922-3). Each plantation was to be farmed by a group of neighbouring villages. By 1932, however, 18 of the Orders in Council by which the plantations had been established had been cancelled (there were no cancellations thereafter). Of the remaining 20, 14 were located in the Northern District and the other 6 in other parts of Papua. With the exception of small extensions to several plantations, no further land was bought by the Crown for this purpose after 1925. The plantations established on Crown land in the Northern District are listed in Appendix A.[A]

In 1925 the policy changed to the extent that plantations were only established under the ordinance if people could be persuaded to set aside native land for the purpose. The Crown did not buy the land, and residual ownership was not challenged, but for such time as the land was proclaimed under the ordinance it could only be used as a native plantation for a particular group of villages. We have been unable to ascertain the reasons for this change of policy. Between 1923 and 1936, 75 plantations were proclaimed in Papua under this section of the ordinance. By 1934, 36 of the Orders in Council setting up the plantations had been cancelled. Of the remaining 39, 12 were located in the Northern District. They are detailed in Appendix B.[B] No further communal plantations were ever established.

A. [See Category 423, pp. 37-40--Analyst

B. [See Category 423, pp. 41-42--Analyst]

425 The purchase documents list the names of the vendors, who were described as "sole owners" of the land concerned.[1] There was an average of five "owners" per block, with a range from one to eleven. All of them were men. From the sample checked it appears that not all members (nor even all male members) of the owning sub-clans were included, but rather the heads of the owning sub-clan and of component lineages. Moreover, some heads of neighbouring sub-clans which participated in the project, but were not members of the owning sub-clans, were included. This suggests that the people may have viewed the negotiation as a decision by the signatories and their descent groups to set the land aside for a particular purpose (with the consent of the occupying sub-clan), rather than outright sale by the occupying sub-clan.

Legally the blocks which were purchased belonged to the Crown, but the Orokaiva people do not admit either the sale or any other Crown rights. In the course of field work in 1963 we asked villagers at each of 12 blocks, to whom the land on which the coffee was planted belonged. Invariably we were told that it belonged to one or other of the local sub-clans. In three instances we suggested that it may have belonged to the Crown, but the people reacted so strongly that we did not press the point, (though the strength of their assertion may well have reflected their uncertainty about precise rights to the land).

423 At the time of purchase the officers concerned no doubt pointed out to the owners that the land would not be taken for use by the government, but would be set aside for the collective use of the villages concerned. The plantations were in fact established and it is understandable that the people consider that the landowners were merely granting joint usufruct to members of neighbouring sub-clans. The government has never asserted its legal rights to the abandoned plantations, and it seems unlikely that it will ever do so.

Planting under the ordinance

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241 Whereas the Native Regulations had been implemented by the Resident Magistrates, provision was made in the

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[212] (1) The vendors were illiterate and signed the documents by the putting of marks.

After 1958 most of the coffee produced by indigenous 245
growers in the Northern District came from plots which were 423
planted by individuals (largely as a result of agricultural extension services) and registered under the Higaturu Local Government Council land registration scheme. The communal project was formally abandoned in 1960 with the repeal of the Native Plantations Ordinance.(1) Crown lands reverted to the Crown and native lands to their owners. The Government has treated the Crown lands as reserves for the local people and has not taken any action to restrict their use as communal plantations. Today, however, only 9 of the 16 pre-war plantations 433
which we visited are producing at all, and they at only a fraction of their potential output.

We traced the history of the Ongoho community block 578
in detail in a series of separate interviews at each of the [124]
villages which had participated in the project.(2) The collapse of the project there was caused by disagreement over land rights, apportionment of work and distribution of income. The [614]
disputing parties were the various sub-clans which had participated in the project. The sub-clans may be roughly equated with villages.(3)

Before the war, strict control by the Administration 657
precluded the emergence of these particular problems: the land 245
had been demarcated and the trees planted under close supervision, fixed patterns of work were imposed, and the money was paid to each man by a government official. By the late 1940's however, the sanctions for failure to work were not in fact being exercised, and attendance was irregular. The Ongoho "coffee 245
boss" who had been responsible for local supervision from about 1945 found the dissension too much to control and resigned in 1948. Little work was being done and the govern-

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(1) The Native Plantations (Papua) Repeal Ordinance 1960.

(2) This was necessary because the issue is still very contentious and feelings about the disputes over the community gardens are still strong.

(3) In fact each village is regarded as being that of a particular sub-clan, despite the [621]
existence of smaller enclaves of other sub-clans in most of them. Marriage is usually [582]
(but not exclusively) between sub-clans and almost invariably within the Asigi tribal group.

245 ment coffee pulping machine was withdrawn. Supervision of
the coffee was taken over by the village constable (who had been
in charge of the coffee before the war) but no records of
attendance were kept. Later, at the constable's suggestion, a
Patrol Officer is said to have appointed one Haruma (who is a
classificatory brother of the constable's wife) as coffee boss.
This must have been an unofficial appointment as he was not
[578] paid. There was by this time a continuing dispute about the
distribution of income from the coffee.

The Hoiwo'undi sub-clan, on whose land the Ongoho
578 coffee was planted, claimed a larger share of the proceeds
423 because the land was "theirs". As no agreement was reached,
614 the Hoiwo'undi forbade members of other sub-clans to enter the
coffee gardens. This prohibition was respected even though
many people felt it to have been unjust. Legally of course
neither Hoiwo'undi nor any other sub-clan had any right to the
land, because the whole garden area had been purchased by the
Crown in 1922 and set aside as a reserve for the purpose of a
native plantation in 1923. But security of tenure is dependent
much more on beliefs than it is on law and in fact the people do
not concede the government's right to the land. All are agreed
that it is Hoiwo'undi land, though the other sub-clans consider
that as everybody cleared the bush and planted the trees, it is
unjust that Hoiwo'undi should have denied them access. No-
[241] body, however, seems to deny their right to do so. In fact
Hoiwo'undi people had been using the front part of the area for
a food garden before the community coffee plantation was es-
tablished. One family of Akute'undi sub-clan had also been
gardening there with the approval of Hoiwo'undi. The coffee
boss (Haruma) was also the leader of the Hoiwo'undi sub-clan.

For a time the community garden was abandoned
245 altogether, but later some Hoiwo'undi people harvested coffee
there spasmodically. The income was shared within Hoiwo'undi.
No weeding, pruning or other maintenance work was carried
731 out at this period. At the time of the Mt. Lamington eruption
241 in 1951 all work ceased. The government coffee factory and
buying centre was destroyed and so were several of the com-
munity plantations.(1) Due to the trauma caused by the disaster

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(1) In fact the coffee trees grew again from seed which had been lying in the ground and which was not affected by the eruption. These self-sown trees have not been tended or thinned, however, and their productive potential today seems to be very low.

Conclusions

433 241 All the attempts to promote communal cash cropping among the Orokaiva have been economic failures. There is no evidence to suggest that they have been successful in any non-economic sense. Each of the ventures has been associated with problems of land tenure, work organization, income distribution and motivation. We will deal with each of these problems in turn.

423 [614] Problems of land tenure: When a sub-clan or other descent group has set aside land for use by a larger body which includes other descent groups, the donor descent group is recognized in terms of traditional culture as having residual rights to the land. These rights may still be recognized by the community even if they have been abolished by legal action in terms of administrative procedures (see pages 10 and 25).(1) A This is particularly so in cases where the setting aside has been the result of a degree of persuasion which appears to the people as compulsion. Strict government supervision can protect the legal rights but, if none of the parties are particularly anxious to have them protected, the supervision needs to be constant and [461] strict to be effective. Even then the results are unlikely to justify the effort required to effect the controls, for supervision by force results in very high overhead costs and seldom motivates workers to maximise output.

241 614 [592] We do not know of any instance of communal planting of cash crops by a single descent group on the land of that descent group. Traditionally all planting was organized at the level of the primary household, with some reciprocal assistance from other households for specific tasks at irregular intervals. If, a single descent group did undertake clearing, planting and harvesting of cash crops jointly, tenure problems would be un-

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(1) A similar phenomenon was observed in the Ambenob scheme near Madang where the Administration purchased land from the villagers and leased it to the Local Government Council for sub-lease to individual farmers for cash cropping. The purpose of the scheme was to give security of tenure to the individual, but as both vendors and sub-lessees recognized some degree of residual right as remaining with the vendors, a sense of security has not been achieved. This is one reason why sub-lessees are in fact planting their cash crops more on their traditional lands than on their sub-leases.

A, [See Category 423, pp. 10, 25--Analyst]

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

Appendix "A"

Plantations established in the Northern District on Crown land under the Native Plantations Ordinance

Official No.	Location	Area a. r. p.	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage(1)
5	Bowera (loma))	These four plantations were never operated. They were cancelled in 1932.						
6	Tabara (loma))							
7	Wadi (loma))							
8	Poho (loma))							
15	Sasembata	10.0.0		(Not visited)				
16	Garombi	10.0.0		(Not visited)				
17	Isivita (Pereteambari)	10.0.0		(Not visited)				
18	Isivita (Koropata)	10.0.0	Rubber	Koropata Kiorota Egaturu Tambore	) Berikipa) Oitopa	Still being tapped	Owners of individual trees	------
19	Wasida	10.0.0		(Not visited)				

(1) Reasons given by the villagers. In places where only brief visits were made these may be incomplete.

Offi-cial No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
20	Huvivi (New Mongi)	20. 3. 8	Coffee	Huvivi Hingoturu Onjahambo Ahamba Koganata	} Sokepa) Honinapa)	Slight		
21	Mongi (Hangeriterari)	20. 0. 0	Coffee	Mongi Pengipejari Baiwaturu Oteindarituru	) Unjekapa) Darahopa) Koreapa) Akeopa	Nil	-	
22	Soputa (1)	20. 0. 0	Coffee	Soputa Hinhota	(Paratapa, Kovenopa (Wasiripa Asinapa, Humotapa, Soupa, Asepa, Pangaripa, Tigasepa, Angorapa	Nil	-	Dispute over land rights
23	Sombo (Sangara)	15. 1. 30	Coffee	Sombo No. 1 & 2 Egaturu, Tunana, Seondeturu, Hangeturu, Sehamo, Huisata	) Horeopa, Embupa,) Pangaripa, Sorupa,) Homberepa, Heurapa,) Heregapa, Dihumapa,) Horipa, Besupa,) Hirikipa, Hatopa,) Okaipa, Sivavapa,) Houngapa, Umbahapa,) Anetapa, Kogorapa	Slight	Any Sombo people not killed in eruption	Destroyed by Mt. Lamington. Individual plots planted before community plot rejuvenated

(1) Location later changed from Crown land to Native land.

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Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
24	Imanituru (Old Higaturu)	30.0.0		(Not visited)				
25	Andemba	22.2.0	Coffee	Andemba, Kewana, Kuruta, Opapata, Hamuni, Ogapoegarota, Hamumuta	) Horeopa, Huaepa,) Heregapa, Sindapa,) Pakuhopa, Jujapa,) Waraupa, Punahopa,) Suarapa, Haujepa,) Noerapa	Slight	Any Andemba people not killed in eruption	Destroyed by Mt. Lamington Individual plots planted before community plot rejuvenated
26	Ambogo	22.2.0	Coffee	Ambogo	(Komotepa, Serigepa, (Hurepa, Oripa, Moinapa, (Sigorepa, Hinjopa	Slight		Partly destroyed by Mt. Lamington
				Amonekirota	Sohopa, Hatopa, Sehopa			
				Haeraturu	Sehopa			
				Ojahirita	Haujepa			
				Ambohu	Embatipa			
27	Hamburata (Huhurundi)	20.2.0	Oil palm then coffee	Hamburata	(Herepa, Boutepa, (Iohipa, Ombarapa, (Seharipa, Oripa, (Barunapa, Bakopa, (Berehobari, Irinapa, (Ingikipa	Nil	-	Price inadequate - coffee trees later destroyed by flood
				Haugata	(Atupa, Bangaripa, (Embesepa, Haunapa			
				Kulumbata	(Oretapa, Huhurupa, (Hauro, Heregapa, (Pakopa			
				Juhata	(Sindapa, Hihinepa, (Jiregapa, Aukapa			
				Seoro	(Huepa, Akutepa, (Oisopa, Jega			

Official No.	Location	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
28	Ahora (1) (Huhurundi)	20.0. 0	Cocoa then coffee	Ahora Arova Omba	Hurupa Gambe Gambe	Nil	-	Price inadequate
29	Kanari	12.0. 0	Coffee	Kanari, Ajase, Iwori, Waru, Jajau		Nil	-	Dispute over land rights
30	Ongoho	15.0. 0	Coffee	Ongoho, Sotokoiari, Ivisusu, Hongorata, Ondahari, Oere, Girigirita	Akute'undi, Pomoni'undi, Hoiwo'undi, Sahuru'undi, Kajumba'undi, Hature'undi, Urumo, Baruma	Slight	1 family (ex coffee boss)	Disputes over land rights, income distribution and work sharing
		270.2.38						

(1) Rescinded 2.12.1929, but land legally remained as Crown land.

The above plantations were all gazetted on 7.2.1923, but an addition of 4 acres (making 20 acres 3 roods 8 perches in total) was made to Plantation No. 20 on 6.2.1929.

6: Crocombe E-4,5 (1963) 1964 √OJ23 Orokaiva OJ23

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Appendix "B"

Plantations established in the Northern District on Native Land under the Native Plantations Ordinance (1)

Official No.	Location	Year established	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
75	Doboduru (Beuru-Perombata)	1925) 1929)	12.0.0	Coffee	(Not visited)				
76	Kakendeta	1925	9.0.0	Coffee	(Not visited)				
77	Haugata (Hamburata)	1925	12.2.0	Coffee	(Not visited)				
78	Eruatutu	1925	31.0.0		(Not visited)				
104	Kiorota-Hohota (Meamburari)	1929	15.0.0	Coffee	Hohota, Kiorota	Jau'undi, Havari-haha, Kaguhaha, Andirihaha, Suaru-undi	Slight	Former landowners	Dispute over work organization and income distribution

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(1) These are in addition to the lands listed in Appendix A, which covered those acquired by the Crown and set aside as Native Reserves. Plantation No. 22 (Soputa) was transferred from Crown land to Native land in 1930 - see Appendix A.

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

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Official No.	Location	Year established	Area	Crop	Villages participating	Sub-clans	Present use	User	Reasons given for stoppage
105	Hegata-Pendereta (Hururu)	1929	9.0.0	Coffee	Hegata Penderata Puhemo	(Bevehupa, Baratapa, (Eherapa, Okaipa, (Endehipa, Waraupa, (Angoropa Sesengipa Ribunipa, Gasipa, Horiwapa	Still Picking	2 Hegata men (the former landowner and one other)	Still working. The non-owner gives the landowner a share of proceeds from sales.
106	Banguho Creek (Peromba-hambo)	1929	12.0.0		(Not visited)				
110	Tunana	1934	9.0.0	Coffee			Slight		Damaged by Mt. Lamington
111	Beuru	1934	8.0.0	Coffee	(Not visited)		Slight		Damaged by Mt. Lamington
112	Hegau (Kanari-Jajau)	1936	6.2.0	Coffee			Nil	-	Dispute over land rights
113	Heherita (Kogonata)	1936	4.0.0	Coffee	Girigirita, Epa, Heherita	Pomoni'undi, Jahaki'undi, Urumo	Nil	-	Not resumed after Mt. Lamington eruption. No reason given
			128.0.0						

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

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Appendix "C"

A sample of community plantations established in the Northern District of Papua since 1947 (not related to the Native Plantations Ordinance)

Location	Year started	Area (approx.)	Crop	Villages participating	Sub-clans	Present use and user	Reasons for stoppage
Hojavasusu			Coffee (originally cocoa)	Hojavasusu	Seho, Uhoru Ererehaije, Hoihane, Kindarahaije	Sub-divided about 1956 into individual plots. (Well kept. Land belongs to Seho sub-clan but no dispute over use by individuals of all clans).	Not stopped. (Use rights confirmed by registration with Higaturu Council)
Ajeka			Cocoa	Ajeka		Spasmodic, mainly by landowners	Dispute over land rights
Sivepe	1956	1½ acres	Coffee	Sivepe	Jegase, Seho, Timumu	Divided into individual plots in 1958.	(Registration with Higaturu Council applied for)
Gewoto	1947	3 acres	Coffee	Garara	Somboba, Ijipa, Undaripa and 2 others	Nil	Dispute over land rights

6: Crocombe E-4,5 (1963) 1964 OJ23 Orokaiva OJ23

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Appendix E

Extracts from Native Plantations Ordinance 1925-52 and subsidiary enactments

"4. (1) The Lieutenant-Governor may ... direct that any land acquired or resumed under the provisions of the Land Ordinance 1911-24 ... shall be a native plantation 423 657

(2) The Lieutenant-Governor with the consent of the native owners may ... direct that any land shall be a native plantation ... and shall remain so until the Lieutenant-Governor otherwise orders but the land shall remain the property of the native owners.

4. (A) The Lieutenant-Governor may appoint officers to carry out the provisions of this ordinance. Such officers shall be known as controllers of native plantations ....

5. (1) Statutory workers[1] shall work for such number of days each year as may be prescribed .... 466 [651]

(2) For cultivation work ... the Lieutenant-Governor may ... remit tax.[2]

8. (1) Of the total annual produce of each native plantation one half or such other proportion as the Lieutenant-Governor may order[3] ... 241 657

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[1] Defined as "every able-bodied male villager" aged between 16 and 36 years excepting government or mission employees and indentured workers.

[2] Order in Council of 2.7.1924 ruled that no tax would be payable by any villager who worked for two months per year on the plantation.

[3] No proportion was ever gazetted but it is understood that one half was invariably taken.

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(a) may be distributed in kind by the Government among the villagers . . .

(b) may be sold by the Government on account of the villagers . . .

(c) may be purchased by the Government from the villagers . . .

423 9. The remainder of the annual produce of each native plantation . . . shall be the property of the Crown".

466 Native Plantations Regulations 1926, made under the above ordinance, prescribed that statutory workers had to work sixty days per year on their plantation. It also provided that "supervision and regulating native plantations and the cultivation thereof" was vested in the Director of Native Taxation.

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Order in Council of 20.9.1926 made the following provisions for the distribution of the villagers' share of income derived from native plantations:

> "1. That each one-half or other proportion of each year's produce which is the property of native villagers . . . shall be divided among the statutory workers and voluntary workers in the proportions that the number of days which each of them respectively has worked during the year bears to the aggregate number of days which all of them have worked on the native plantation in the cultivation thereof . . . .
>
> Provided that where any statutory worker (who has by death or age ceased to be such) or where any voluntary worker (who has ceased to be such or has died) has previously worked on a native plantation for any time during any year during which the prescribed plant cultivated thereon has not come into bearing or is unproductive then he (or, in case of his death, his widow, or in case of her death, his child or children whilst under the age or apparent age of sixteen years) shall be entitled to receive

during the first productive year of the native plantation such part of the produce thereof as is the property of the villagers as the proportion which the number of hours he worked (in his first year of work) whilst the native plantation was unproductive bears towards the total number of hours which all statutory workers and voluntary workers worked in that year and so on yearly mutatis mutandis until he (or his widow or children as the case may be) has received such part of the produce in respect of each unproductive year he worked on such native plantation. 465 466 434

2. That instead of allotting the proportion of the annual produce of a native plantation in the manner set out in the proviso to Paragraph 1 hereof the nearest Resident Magistrate ... may be required by the Director of Native Taxation to confer with the villagers in their village and ascertain what other scheme of allotment of such annual produce they themselves consider to be preferable .... The Magistrate shall report the result of such conference to the Director who shall forward it with any observations he desires to make to the Lieutenant-Governor who may approve the scheme preferred by the villagers with or without modification whereupon that scheme of allotment as approved shall be followed in relation to such annual produce instead of the scheme ordered in the said proviso. 241 657

Officers to be instructed to adopt 2 when practicable."

Native Plantations (Papua) Ordinance 1952 provided that the villagers would own the whole of the produce of the plantation instead of half as formerly. This ordinance also did away with the earlier requirement that villagers work 60 days per year on the plantation, and cancelled the provision whereby persons who worked on plantations for two months were exempt from tax. 657 [423] [466] [651]

Chapter 1

Introduction

101 There is no local consensus as to which peoples in the Northern
District should be regarded as Orokaiva (see Williams 1930 :1-4),
[177] but all the peoples concerned recognise that they have a relatively
uniform culture and speak mutually intelligible dialects of one
[161] language. The people in this culture area number at least 25,000.

[829] Although they did not have an inclusive name for themselves
until 'Orokaiva' was introduced by Europeans, they generally drew
the distinctions among themselves between river people, salt water
538 people, and inland people (umo-ke, eva'embo and periho). There
are wide-spread traditional beliefs dealing with the common
origins not only of these different categories of people, but also
of mutually hostile tribes, the largest political units among them,
and of the various dialectal groupings and local cultural variants,
which correspond to a limited extent with the political division
into tribes.[1]

121 Our study of Sivepe was designed to complement a study of land,
work and productivity at Inonda village (Crocombe and Hogbin 1963)
and other related studies in the area (Dakeyne 1965; Howlett, 1965;
Crocombe 1964; and Cheetham). We attempt no general comparison
with the results of the other studies at this stage.

423 Because land tenure problems were central to our investigations,
the groups at Inonda and Sivepe were chosen from villages in the
[121] Higaturu Native Local Government Council area which is occupied
by about 12,000 of the Orokaiva. In 1956 this council adopted a
[162] scheme to register individual title to parcels of land which would
be allocated by land-holding groups to individual members for use
as cash-crop gardens. The scheme had encountered several

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[1] See Williams 1930:155; W.47, 140, 148; 0.40, 411, 486, 598, 640; Folktales Nos.45, 54. W.47,... 0.40,... Folktales, etc., refer to the notation used by Williams in his fieldnotes, see Bibliography, p.121.

423 obstacles,[1] but the policy of registering villagers' land was being implemented at the time of our surveys.

121 Inonda and Sivepe alike had experience with their council's registration scheme. The principal reason for working with these villages in particular is that they may be regarded as typical of two extremes among local communities in the council area. The following conspicuous variation was taken into account, in view of the need to investigate the relation of local conditions and problems to economic change in general and to the council's tenure scheme in particular.

161 Sivepe is located in the Saiho Census Division which has an overall population density of 75 persons per square mile, but there are local concentrations of much higher density, for example, 237 persons per square mile at Sivepe;[2] the density of the Saiho Division is the highest in the Northern District and the third highest among the rural census divisions in Papua,[3] but does not approach the densities found in several places in the New Guinea Highlands.[4] The density of the Buna Census Division where Inonda is situated is about 8 persons per square mile, the lowest among the Orokaiva.

The average size of Saiho villages is about 175 persons,
133 compared with an average of 100 in the Buna Census Division. The
Sivepe people live on the highly fertile slopes of Mt Lamington,
132 receiving an annual rainfall of about 160 inches; Inonda's land
is lower, flatter and comparatively poor and receives about 95
131 inches a year. Inonda is 11 miles from Popondetta on the road to
Oro Bay and Sivepe is roughly twice as far from the township,
along a road leading inland.

101 For brevity we will speak of the 'mountain Orokaiva' as an
[133] alternative to 'Mount Lamington Orokaiva'. (See Keesing 1951:5-6.)
[162] This group, we believe, was the largest socio-political unit, the

[TEXT CONTINUED ON PAGE 6]

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[1] For an account of the developments of the registration scheme see Crocombe and Hogbin 1963:89-93.

[2] Population is over 8,000 and there are 8.6 acres available per head in the census division. The personal opinion of at least some local officers has been that local densities of 200, and more, persons per square mile are not at all rare in the division.

[3] After Kaipi, Gulf District and Kuboma, Milne Bay District.

[4] However, Keesing (1951:2) maintained that these Orokaiva on the Mt Lamington slopes achieved 'perhaps the densest settlement patterns of any of the shifting "dry" cultivators in the New Guinea area'.

241 area over many months ensures a continuous supply of maturing food over a long period, but it means that one section may have been abandoned some time before the plot as a whole is finished. Therefore, there are limitations to estimates of the rotation period, made by determining the number of years which have elapsed since the previous clearing of the plot.

An average of 6 years had lapsed since the land under cultivation was said to have been last used. One area had not been cultivated for 15 years but in several cases the land had been fallow for only 4 years.[1] Informants stated that this rotation period was long enough to maintain yields. By that time secondary growth (enda) of a reasonable height[2] has become established on the overgrown garden (manene).

Many areas of enda had been unused for longer than this average fallow period. These included some parcels of land held by the patrilineal group which has the least land per capita among our sample (see p.58), but the blocks which have been fallow for at least 20 years belong to the groups with large landholdings. Some of these areas were considered less suitable either because the soil is of a slightly poorer type or because they are not a convenient distance from the village.

The short cultivation - bush fallow rotation does not occur repetitively even on a fixed number of selected parcels held by the members of the sample. Since the average period of bush fallow was deduced from the dates of the previous use of the total area at present under cultivation, it must be noted that 49 per cent of this was on land belonging to a group other than the planter's (see p.70 ff.). The shortest fallow period was no more common among the gardens of men with small landholdings than among
[423] gardens of those with large areas. Some gardeners from each group were exercising usufructuary rights as cognatic kinsmen of landholders of other patrilineal groups (see Table 5).A Those who were cultivating a total of 6 acres of land of members of other clans generally claimed that permission to use this land was granted on a reciprocal basis.

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[1] Williams' informants at Wasida said that land was replanted after 4 years' fallow (Williams W.27).

[2] The Orokaiva generally maintain that it is easier to clear areas where fairly large trees are standing than areas with no prominent timber. See also Newton (1960:113) who points out that within 5 years of the start of a tropical rainforest fallow 'the total quantity of nutrients immobilised is more than half the total immobilised in an eighteen-year-old forest fallow'.

A.[See Category 423, p. 70--Analyst]

423 [224] [226] The only local hunting land held by Sivepe people is that held by individuals as gardening land. A villager may hunt or fish on the land held by members of any group in the village and in fact often strays further afield than this 'village land' without attracting the attention of other groups. A man may, without consulting others, invite a kinsman from another village to hunt or join in a fish drive with him but no hunting parties involve the assembly or co-operation of larger groups. A man wishing to hunt on the land of one of his kinsmen in another village would consult his kinsman first.

d. Livestock

235 [231] Apart from the game available to the hunter, there are only 2 sources of fresh meat available, the domestic pig and fowl. Six householders own a total of 15 fowls which were either bred or bought by their owner. They are valued mainly as an asset for times of feasting and only to a limited extent for egg production. They are allowed to run loose in the village during the day but are enclosed in shelters at night for protection against dogs.

231 [241] Like fowls, pigs are fed by women mainly on scraps but they find much of their food by roaming in the bush and grazing in old gardens. They have complete freedom of movement within or outside the village during the day and in some instances only are they housed in pens during the night. As a result, they are a constant threat to gardens which are not thoroughly fenced; their movements are a frequent source of dispute and require the gardener to exercise care in siting his garden and sometimes to devote considerable time waiting there to attack a pig which has been frequenting the area.

[431] [426] Of the 24 pigs or piglets claimed by 7 of the 12 householders, 15 were bred by them and the rest received in gift exchanges; none was inherited. The only longstanding debts admitted or claimed by members of the sample were in terms of pigs.

[140] There is little animal protein in the villagers' diet; some fresh meat and smoked meat or fish is purchased at Saiho market or from vendors travelling to the market - this source of meat seems to be quickly becoming reasonably accessible (E. Waddell: personal communication), but wild pigs - a very important source in many other Orokaiva areas - are rare and the area for hunting restricted. It would be feasible to take steps to modify any lack of animal protein by increasing stock numbers and improving their quality, but this would involve the introduction of new strains and, to maintain any increase or improvements, husbandry techniques would need to be refined.[1] At present parasites take

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[657] [1] About 50 Berkshire boars were distributed to Village Constables among the groups affected by the Mt Lamington eruption.

423 It is customary for a man to plant a few trees on his own land
for his sister's children for their later use. Women sometimes
[245] acquire trees of their own in this way but unless a woman is the
sole surviving member of the agnatic group in which are vested
[428] the rights to the land carrying economic trees which she uses, she
acquires no rights to specific trees from her father. After
marriage she has only limited access to her patrikin's trees
whose produce she previously shared. One householder stated
that he would not expect his sister to ask for produce from his
[685] trees because her husband should have enough of his own. Another
once lodged a formal complaint with the Department of District
Administration staff against his sister's husband who had come
from another village to harvest one of his trees without first
seeking his permission.

These restrictions do not apply to a widow who has returned to the village as a dependent on her father's kin; nor do they apply to a married woman if the trees in question were planted by her husband while gardening on the land of her group.

428 Economic trees are ideally inherited patrilineally in the same
way as the land of the planter (see p.38).[A] Sometimes a man inherits trees from his father, usually in an area some distance
from where he lives, without retaining proprietary rights to his
father's land where the trees stand. The heir then needs to seek
permission for access to the trees which he may have been allowed
to retain by the deceased's co-resident kin who inherited the
[423] land. On the other hand, an individual may receive as a gift
(from a distantly related kinsman) continuous rights to trees on
land which he knows will be inherited by the donor's patrilineal
descendants. In each of these ways rights to trees are transmitted from the planter to another person who does not receive
the planter's land.

We noted one case where an individual seems to have reinforced a claim to inherit particular parcels of the land which he hoped he would share with another heir, by planting permanent trees there while gardening. The trees bore witness to the fact that these particular gardening areas had long been identified with him.

425 A man may periodically visit a distant area where he claims proprietary rights to land which he has not gardened for some time and harvest tree crops, or perhaps hunt there, and thereby reassert his claim to the land, but this mechanism is doubtless inadequate unless a close kinsman permanently resident there is willing to represent his interests at other times.

423 On special festive occasions a localized patrilineal group has
614 some call on the produce of the trees or even of garden produce
of residents of other villages who are either closely related

A,[See Category 428, p. 38--Analyst]

423 [614] clansmen or other kin of members of the group. But this takes the form of a request to these kin to attend and to bring the food with them and the group could never demand access to the resources of others.

Table 3

Rights to economic trees

	No. of trees	% of total
Planted by rightholder or his father on their own land	463	62
Planted by rightholder (or others) on land of another clansman in Sivepe or elsewhere	55	7
Planted by rightholder on land of matrilateral kin	22	3
Planted by others on land of his matrilateral kin	31	4
Planted by rightholder on land of affines	43	6
Planted by rightholder (or others) on land of cognatic kin of another clan	14	2
Planted within village sites	120	16
	748	100

241 f. Equipment

The hardwood dibbling stick, ti, is still used universally for planting taro. Other tubers are sometimes planted in mounds made with a shovel but all of the 4 shovels used by members of the sample had been found (at World War II Army dumps) or had been given to the owner. Every householder owned at least 1 bushknife for use in clearing, weeding and harvesting; all had 1 axe or sometimes 2, and at least 1 grass knife. A few of these tools had been received as gifts. Two householders had picks and 2 others had both hammer and saw, while 2 men had only a saw.

435 Total current replacement value of all these tools, including those found or received as gifts, is £50.6.0d.

The 2 shotguns owned by 2 men would cost roughly £30 each (apart from licences).

g. Labour

461 We conducted a pilot survey of the patterns of work among members of our sample for 6 weeks.[1] Approximate times were

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125 [1] From 10.12.62 to 20.1.63 a similar survey was carried out at Inonda (Crocombe and Hogbin 1963:61) and fuller studies by P. Krinks and E. Waddell are now being prepared for publication.

613 general information is already beyond the immediate recall of the surviving Jegase men.

The Sivepe people who belong to Timumu, the second clan represented in our sample, are members of 2 lineages, Pekuma and Hajejope. Other than clanship the two can reckon no link originating in the 'district' from which both emigrated independently to the neighbourhood of Sivepe; their closely parallel histories of migration, subsequent residence and marriage account for the present firm connection between them.

The largest exogamous groups are lineages, but this rule readily lapses when a lineage achieves a much wider span than average, especially if it becomes scattered for any length of time or in more than one 'hamlet group'.

621 All land around Sivepe and neighbouring villages is divided
into named areas which we will call 'blocks'. Each is usually a
[103] locality deriving its name from a prominent local natural feature -
often a tree or a grove of trees, hence Korinasusu or Korinaturu.
[128] For any subdivisions of a block we use the term 'section' and we
refer to either 'blocks' or 'sections' as 'parcels' of land.[1]
No correlation is implied between the type of a parcel and the
type of rights held to it.

423 All land constituting territory of the Jegase, Timumu or others
in the neighbourhood is divided into parcels which are the holdings
[428] either of individuals or of full brothers. A man's rights and
other property are ideally inherited patrilineally. In some
circumstances a definitive division of the father's land may be
made among his sons before his death. This usually takes place
if the sons already have their own households, if the father is
no longer very active in village life or if the younger men are
[562] only half-brothers. We know of no instances of a daughter
receiving a particular share at the time of such an allocation,
but we refer elsewhere to circumstances where women hold land
428 (see Appendix E, p.111).A In other cases brothers may jointly
hold all the land inherited from their father. This seems to
apply particularly to instances where a younger brother is
unmarried or has taken temporary employment away from the village

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[823] [1] People commonly use the name of a block to refer to any parcel of land, for instance in listing their landholdings. They draw attention to any specific distribution of sections of 1 block among different people only when the context requires them to. On Map 2, where 1 man holds adjacent blocks or 2 adjoining sections on 2 adjacent blocks, the boundary between them is not shown. Only boundaries between different landholders are indicated. B A

A,[See Category 428, p. 111--Analyst] B,[See Category 102, p 40--Analyst]

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Actually no power has been delegated by the leader of their lineage. They are de facto custodians to the extent that circumstances had forced them to leave their original village and each selected a place to settle convenient to one of the areas where he could exercise individual rights to patrimonial or other land. They could at the same time protect the interests of other members with landholdings nearby. Although they refer to this trust as Bebehupa land, the reciprocal obligations seem to have followed on a mutual agreement reached by particular individuals.

It is however in this group that the councillor still expects to exert most influence in the discussion of general affairs. Within it he has a recognized standing as the largest landholder. On this account his opinion and knowledge of the locality are respected also by Jegase men of other lineages. Besides, they share many boundaries with other Bebehupa men and with members of Binduta and Awala villages among whom he could conveniently serve as a representative of their interests, having closer ties with these villages than they.

Otherwise his powers outside the affairs of the dispersed Jegase lineage are related to his position as councillor. He and another councillor were elected by Sivepe, Binduta and Awala villagers before he left Binduta and attached himself to Sivepe. In this capacity he receives no more support from other Jegase men in Sivepe than from the rest of the village. In 1963 a young man of another Jegase lineage there, with considerable support from voters within Sivepe, was a rival candidate for councillor for the 3 villages but was unsuccessful.

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We have so far discussed only the powers of Bebehupa men, either in their lineage or in the clan branch. The other Jegase men enjoy rights of land control which are even more limited. The proprietary rights now held by each householder of the Berekipa-Arehu part of the clan branch were acquired by him independently of the others. Although there is frequent interchange of planting rights and consequent discussion among them as to the allocation of their resources none of the 4 could claim of right an equal voice in the control of the others' land. Again, each of the 2 Timumu lineages had settled independently in the neighbourhood of Sivepe by acquiring land from sources inaccessible to the other.

Associated with the weakness of central control over land of smaller groups on clan branch territory is the complete freedom each landholder has in granting usufructuary rights, provided due consideration is given to the anticipated physical needs of any joint heir (i.e., a sibling) or of any dependents for whom he is responsible. Each thus maintains relationships with other

613 423 individuals by creating and fulfilling obligations independently of other members of the descent group.

(iv) Landholding by the local patrilineal groups. After a closer look at landholding by the lineage, we will comment first on non-agnatic and adoptive relationships in connection with land acquisition and then on the interests in affiliation to the dispersed clan branch as a group associated with a territory.

In the instances recorded of title to subdivisions of a lineage's land having descended in 2 or more separate lines we refer to the landholders as members of distinct 'genealogical branches' of the lineage, even if the landholders are parallel cousins. The type of lineage we describe, however, is not characterized by regular internal structure, for often it is not easy to distinguish lineage from kinship in terms of function.

[171] [611] It is as true of the mountain Orokaiva as it is of most New Guinea Highland societies that

> the principle of recruitment to a man's father's group operates, but only concurrently with other principles and is sanctioned not by an appeal to the notion of descent as such but by reference to the obligations of kinsfolk, differentiated according to relationship and encompassed within a span of only two or three generations.
> (Barnes 1962:6)

613 The solidarity of the current relationships between the males of the lineage can be regarded as a function of the closeness of the ties of agnatic kinship, real or adoptive but of close degree, which among the Jegase and Timumu[1] are effectively reduced to a lineal relationship between, at the most, 3 generations of householders. The strength of the readily noticeable identification of the lineage with an estate distinct from the land of the rest of the dispersed clan branch can be seen as a measure of the interdependence between these close agnates.

A lineage such as those in our sample is the largest group whose members co-ordinate their gardening activities to exploit land associated with it. But against this must be set the independence often exercised by individual lineage members, who, in consolidating other ties of their own, acquire and dispose of short-term landrights. Perhaps some individuals co-ordinate their activities with non-agnatic kin, affines and friends as much as with members of their own group.

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[1] Excepting the Bebehupa: all but 1 of its members (see b6) are descendants either of its oldest surviving man or of his father's brother.

614 Pekuma (9 persons), 28.2 acres, 3.1 acres per head) Timumu
Hajejopa (8 persons), 18.1 acres, 2.3 acres per head)

(If Jegase and Timumu are each taken as a whole, either unit has 2.7 acres per head.)

425 From data recorded for 104 parcels of land held by the Jegase and Timumu at some time over the past 2 generations we discovered 8 instances of transfers (involving 30 parcels) where the land had passed from the original holder to one of his co-resident kinsmen in another lineage or clan. There may well have been more, earlier examples of such transfers. If so they have been forgotten by the people who can conveniently treat all previous occasions when their land changed hands as instances of patrilineal inheritance.

614 423 Three members of these clan branches stated that they intended to transmit a total of 12 parcels to members of other clans (see Appendix E, pp.111-17).[A] Two other members intended to pass 5 to their adopted sons and 3 more parcels were to be inherited by an illegitimate child from his mother (see Appendix E, p.112).[B] One widower has nominated his sister's son as heir to his parcels of land and claimed that his sister's son could also receive his brother's land, allegedly forfeited through long and continued absence (see Appendix E, pp.112-13).[C] One man said he would leave 8 parcels to members of his adoptive group and the 5 inherited by his wife would pass to a person of the same group, a different genealogical branch of her lineage (see pp.60-1).[D]

Land rights of various kinds are acquired and maintained as a function of one's relationships with any of a number of groups. Most proprietary rights are acquired within the range of sources provided by patrilineal and matrilateral kin and other cognates and affines but adoptees may also acquire proprietary rights within landholding groups. In most cases noted where a man had been adopted by a member of his own or a nearby village he had continued to exercise in full his rights to the land of his natal group.

597 727 425 In former times it was not uncommon for a successful warrior to bring back the son of a victim he had killed during an intertribal raid. The child would be brought up as a full member of the adoptive group and would acquire land rights there. (Any newcomers' descendants, such as the Arehu lineage, may be absorbed into a narrow adoptive group of agnates while they are incorporated only marginally into the wider descent group.)

597 There are frequent instances of temporary foster relationships at Sivepe. Although a man who adopts a local child sometimes acts only as a foster father without needing to grant land rights, an adoptee needs neither to be destitute nor to relinquish any

A, [See Category 428, pp. 111-117--Analyst] B, [See Category 428, p. 112--Analyst]

C, [See Category 428, pp. 112-113--Analyst] D, [See Category 597, p. 60--Analyst]

613 of the dispersed clan branch and the only effective rights held in
614 common by the Jegase members of Sivepe are those shared by members
of the village as a whole (see p.22).[A]

[423] In land matters, as in other affairs, the closeness of personal ties between specific individuals in the Jegase group is usually of more account than shared membership of the dispersed clan branch - whether or not these interpersonal connections are agnatic: the dispersed clan branch is not exogamous and no preference is expressed for marrying out. In fact the 3 lineages, Bebehupa, Arehu and Berekipa, have been linked by several marriages in recent generations. In many circumstances the resulting network of cognatic and affinal ties is more important than lineal ties in determining what decisions are made or what action is taken.[1]

When the land of another local lineage of the clan is used for gardening, the usufructuary rights are granted and exercised more often because the landholder and gardener have a personal kinship relationship than because they are neighbouring clansmen.

614 The web of interpersonal kinship is, of course, not confined to the local agnatic group but pervades relationships between the clan branches in this and other villages in the neighbourhood, as indicated by the data on the range of Sivepe marriages and on the complex ties which either spouse (or both) is often found to have in the village where the couple reside. For several decades a constantly changing network of cognatic and affinal ties has linked members of a number of kin groups who have continually grouped and regrouped themselves as local units like Sivepe and its forerunners.

[613] The dispersed clan branch is a significant reference group in land matters even though it has no land held in common by all members. Responses to initial enquiries about land rights of members of patrilineal groups always indicated that the Jegase lineages together in some contexts consider themselves to be one unit which is distinguished from the branches of other clans represented in Sivepe and other villages. It is not easy to discern the real interests which this response reflects.

The dispersed branch of a clan is the most enduring group which is acknowledged by all to be associated with a particular territory; a person's affiliation to this group is the standard rationale of his presence in the village and neighbourhood in which he lives and works. Ultimately the general basis for the tenure by any group within the dispersed clan branch, of its own share of land

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[1] We noticed that the importance of non-agnatic ties is sometimes reflected in choices in the use of kinship terms.

A,[See Category 423, p.22--Analyst]

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Table 5

Rights to land currently cultivated by the sample

Nature of planter's rights to the land currently gardened	No. of gardens	Area of gardens (acres)	
1. Planter is a member of lineage holding proprietary rights	15	9.17	
2. Member of a different lineage but same clan branch	5	2.57	
On land of planter or co-resident agnate			11.74
3. Member of a different clan within the same village	10	4.49	
4. Member of another branch of the same clan	1	0.10	
5. Member of a different clan and village	3	1.51	
On land of others			6.10
	34		17.84

Notes: 1. Of the 5 members of other clans or villages who were using the sample's land, 2 were using the land of their mother's brother's sons, 1 the land of his sister's son and 2 the land of members of their dispersed clan branch in a village other than their own.

2. For rights to land carrying cash-crops see Ch.4, Section c. and Ch.5, Section b.

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Chimbu or to influence the choice of a garden site; a Sivepe man shares land boundaries with many gardeners but his prescriptive rights to his holdings are not so constantly jeopardized if he fails to cultivate his land while neighbours are using adjacent areas (see Brown and Brookfield 1959:25).

Moreover with short periods between successive cultivations and with necessarily extensive total areas used for cultivation a man claims to be able to fix boundaries on fallow land in some detail. These are either demarcated by large trees or shrubs at fixed points or coincide with the courses of the numerous creeks or with roads. The boundaries common to members of different clan branches appear to be neither more nor less clear than those shared by smaller groups. [614]

A,[See Category 245, pp. 83-86; Category 249, pp. 87-93; Category 423, pp. 95-98--Analyst]

> 171 breaks down between [these] clans with land loans, gifts
> 121 and membership changes....
>
> (Brookfield and Brown 1963:158)

621 Both peoples combine patrilineal descent and inheritance with a form of high residential mobility and flexible group affiliation. Within the tribe there is little difference between relationships with affines and relationships with kin in terms of ease of contact, friendliness and mutual assistance; within the local community containing members of several descent groups a solidarity is created by the characteristic multiplication of individual affinal and matrilateral relationships (see Brown and Brookfield 1959:54-6; Brown 1962:68; Brookfield and Brown 1963:78, 129, 132; Watson, ed. 1964:345-8, 352-5).

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171 Individuality in land control is reinforced in both societies by the absence of formal inherited positions of leadership and a pattern of interpenetrating territories is caused by processes of individual acquisition and retention (see Brookfield and Brown 1963:141, 156).

178 361 166 241 individual mobility among the mountain Orokaiva. We especially doubt the generalization that the introduction of tree crops induces the fragmentation of villages into small 'bush settlements' which many observers thought would be established on the site of the gardens. When Agriculture staff first advocated individual cash-cropping among the Orokaiva, the policy was opposed by mission staff who feared that the villages would disintegrate as each grower moved to live near his coffee garden.

This has not in fact eventuated although there has been some movement from large temporary post-eruption settlements like the Isivita villages when immigrants returned to their own land to plant coffee or cocoa.

425 b. Developments related to land tenure

Disparities between the areas in which individuals and groups held proprietary rights are overcome by individuals acquiring rights to other land through interpersonal relationships. Cash cropping by individuals does not seem to have reduced the flexibility of exchanges and transmission of land rights. Three of the 5 persons who planted coffee on land held by members of our sample are not members of the group holding proprietary rights. Similarly, of 28 people who applied to the local government council for registered areas of cash crop land on 7 blocks held by the sample, 8 were not members of the rightholding group.[1]

[654] The need for such transfers is increased by requests from extension officers and the council to locate coffee gardens contiguously to facilitate pest control, extension services and surveying.

[241] [178] [177] Morton (1962:12) argues that new practices in the transmission of land rights have emerged with the expansion of coffee growing since 1956. Our evidence, however, shows that the significant change has been rather the introduction of a new method of cash cropping. The only experience the Orokaiva had of commercial agriculture previously was of large-scale production on plantations owned or directed by Europeans. They had not entertained the possibility of production on an individual basis.[2]

423 614 Morton expresses a view widely held among government officers[3] that the introduction of perennial crops is seen by members of the

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[1] Four of the other 20 applications were made on behalf of members absent in employment and 2 on behalf of boys.

[2] See Crocombe 1964:30.

[3] See Minutes of Higaturu Native Local Government Council Meetings.

423 614 [425 landholding groups such as the clan to require adjustments in the way they exercise their land rights. He feels that persons with authority over the use of a clan's land seldom interfere when it is used for food gardens, but exercise their prerogatives more strictly when permanent cultivation is proposed. He therefore considers that registration clearly defines individual rights for the first time and that this is done by public decision of the whole clan.

[425 We would maintain that the clear differentiation of prescriptive rights of individuals and small groups in Sivepe owes nothing to cash crops or allocations by land controllers or the whole clan. The function of the registration scheme is to guarantee these rights for cash crop land and to provide facilities for transfer which are no less flexible than those which already exist in the area.

423 Meek (1949:285) points out that new methods of establishing security of tenure should follow the current local tenure practices because 'the manner of recording rights necessarily affects the form that landholding may take'.

In mid-1960 39 people with interests in Sivepe land lodged applications with a Cadet Patrol Officer for registration of land usage rights in 8 blocks of land (perhaps 10 acres). Under the Higaturu Council Registration scheme the legality of the registration was uncertain. The Orokaiva were not aware of this and accepted registration as binding. Many people thought that the application forms they received and filled out constituted registration (which they did not). Late in 1963 an officer conducting land registration visited the village but the people claimed that he would not register their blocks because he was dissatisfied with the lack of preparatory boundary clearing. The type of information sought by officials in completing the application forms reflects assumptions about clan ownership which do not fit the actual tenure situation.

[425 If the holder of prescriptive rights should wish either to have them confirmed as permanent rights or to transfer them to one of his kinsfolk any official recognition of an artificially large group as holders of residual rights could provide a precedent for influential persons in that group to extend their sectional interests to include land held by others in the group.

Similarly encroachment could occur if members of a group assumed to hold rights jointly are allocated permanent rights without attention being given to the interests of persons who in fact hold the land in severalty.

The distribution of power would be realigned with a stereotype, transfers would be impeded and litigation increased unless the

423 procedures for determining and recording titles were amenable to local regulation and adjustment by the institution conducting the registration. This does not mean that more than one type of right need be guaranteed or that security of title is unimportant.

657 423 A registration scheme would function best as a mechanism for resolving uncertainties over landrights in other areas where it could enhance the productivity of large blocks of land by rationalizing the overlapping claims of members of 2 or more clans. Due to the extensive fragmentation and subdivision of group territories around Sivepe and the restrictions which have been imposed on the scale and range of the past movements of groups, there were no [578] apparent conflicts in the locality over rights at the clan branch level. The current incidence of interpersonal disputes affected only a few small parcels and did not seem to be a persistent obstacle to productivity.

[425] The question is now of reduced significance as the Higaturu Council scheme has been superseded by more comprehensive provisions for land tenure conversion. Nevertheless, registration of permanent individual rights, whether on a person's own land or another's, is desirable in order to preclude disputes which might otherwise arise once the value of the land is increased by the introduction of permanent improvements in the form of cash crops.

121 [171] We contend that it is legitimate to extrapolate our local information by assuming extensive social and cultural uniformity among the mountain Orokaiva. Analysis of tenure practices and territorial organization of Sivepe groups shows that in important respects the landholding systems resemble those characteristic of certain closely-settled unilineal communities of which Chimbu might be considered the type. We therefore maintain that modern mountain Orokaiva land tenure and local organization differ considerably from the model introduced in outline by Williams in his original monographs (1925, 1928, 1930).

179 423 Finally, we wish to indicate the general significance of the type of council scheme for land registration discussed here, and this is best done by quoting at length from the report of the Mission from the International Bank. It claimed (1964:33) that solutions to land tenure problems in Papua-New Guinea would be found more readily if greater responsibility were placed 'on the native people, including the local Government Councils, to work out their own solution adapted to varying circumstances'.

This would not mean the recording of title under standard European procedures and would 'require comparative flexibility on the part of the credit organization designed to assist and stimulate native production. On this approach there could be much delegation of responsibility' among government staff and 'much

179 423 more active collaboration with local groups and leaders' (ibid:172). The report discusses the Land Tenure (Conversion) Ordinance, which became law in 1964, noting (ibid:171) that the legislation requires that the Administration satisfy the preliminary conditions of 'complete inquiry about customary rights and agreement of all the holders of customary rights' before it can conduct the surveys and convert these rights to individual registered title free from any customary limitations.

The experience of the Native Lands Commission in surveying land and recording customary rights 'indicates that progress in the application of this legislation will almost certainly be slow' - too slow, the mission believes, for much progress to be made in implementing its recommendations for economic development (ibid.).

It recommends 'a more flexible approach' to the obstacles to change, posed by the traditional social matrix of land customs. The Administration could well 'encourage native groups to work out their own solution to obtaining individual ownership or control of the land within native customs. The local government councils could make a useful contribution to this difficult problem.'

c. Economic incentives

433 Mann (1954) concluded his report on the area by stating that the agricultural possibilities of rubber were very good but that

> it seems little short of a tragedy that the well-intentioned efforts to introduce it as a native culture in this area have come so close to complete failure, whilst the trees remain as a source of discouragement to further development of what may prove to be a worthwhile venture for the landowners of the district.

657 433 The policy of establishing rubber stands under the Native Regulation was well-intentioned but, as Humphries points out (1944:4), it was implemented by a single overworked man. The people of the district may well have questioned the point of having 'useful trees' when the initial forced plantings were not followed up with the provision of extension, processing or marketing facilities. Although they eventually received a small income for little effort when a local planter put this idle capital to some use, there have never been facilities designed specifically for local needs.

Belshaw maintained that even while receiving this income the people were unhappy with the scheme, not simply because they judged the price they received unjust, but because they felt it was 'wrong that somebody else should be able to exploit their own resources' (1951:14). Moreover, they resented the withholding of payments and this has left lasting impressions.

591 [614] may be influenced by proximity to a new area of land it is intended to bring into cultivation.[1]

[166] 423 [428] 614 423 (iv) Rights to land. The Orokaiva social system is characterised by flexibility in arrangements for group membership and for transmission of rights to land (e.g. through adoption). Inheritance is usually patrilineal[2] and various land rights may be distributed at a number of levels of social segmentation - the clan branch, lineage and individual - the relative significance of each varying with locality and, apparently, population density.[3] Further, more than one descent group may have rights in a single piece of land. In many instances the clan branch functions essentially as a reference group, all land being associated with it. However, it may function as a primary right-holding group for those hunting areas distinct from current garden land, typically the grasslands.[4] Priority rights to garden land are normally vested in the lineage; nevertheless, all such land is ultimately identifiable with individuals who may distribute land (and property) prior to their death not only to their immediate family but also to more distant kin.[5]

244 423 [613] This markedly influences the pattern of both exploitation of land and transmission of rights. In the low density areas a number of descent groups often agree to exploit simultaneously an area

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[1] [754] [578] Rimoldi (1966:68) found no evidence of the need for new land as a motive for movement. He considers the major motives to be fear of sorcery, disputes between kin and life-crises. It is nevertheless conceivable that the fear or sorcery or disputes might arise from poor yields from over-cropped garden land, which would require a move in any case.

[2] [562] Women are known to hold land only as a form of trust for their children (Crocombe and Hogbin 1963:75).

[3] [311] [614] We do not know whether any causal relationship exists between these two factors. However, the existence in low density areas of primary forest surplus to current garden needs, plus extensive grassland and mountain areas utilised largely in hunting only, might well account for the responsibility for such land being vested in the larger social group, the clan branch. This group's significance has been eroded in the high density areas, where there is little or no land surplus to present gardening needs.

[4] [224] In the high density areas hunting is frequently confined to garden land and individuals can commonly hunt over land belonging to anyone in the village.

[5] For example, sisters' sons (Crocombe and Hogbin 1963:24).

241 that is then cultivated contiguously,[1] while in the high density
423 areas there is a tendency towards a more individual pattern of
exploitation.[2] Short-term rights to land for the non-lineage
[613] members are frequently granted (on a reciprocal basis), sometimes
to facilitate contiguous cultivation or to compensate for inadequate
landholdings. This pattern is promoted by the high degree of
[425] fragmentation of individual holdings. Further to this, Rimoldi
(1966:62, 95) observes that plots are often permanently transferred
outside the direct patrilineal line, and this applies equally to
[578] land under both cash and subsistence crops. In the Inonda area,
however, Crocombe and Hogbin (1963:73-5) observe that there is
considerable reluctance to plant, or make land available for
planting cash crops if the land has not been acquired patrilineally, for fear of subsequent disputes. Thus the tenurial
situation may be of considerable significance in the development
of cash cropping.

245 Traditional tree crops are not planted in stands or groups like
cash crop trees, but are widely scattered and may equally well be
planted on patrimonial land or on land of affines or matrilateral
428 kin. Inheritance of rights to trees usually does not involve
rights to the land on which they stand. However, owing to their
wide spacing, their presence rarely seriously affects other cultivation of the land.

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[1] The decision-making process has not been investigated but it appears that there is no institutionalised position relating to land matters. An exception is provided by the Yega of the Gona census division who recognise a 'land custodian' (see Dakeyne 1965:55).

[2] It is possible that this is an expression of the fact that suf-
[311] ficiently large areas of suitable secondary forest are not available
[136] at any one time to permit contiguous cultivation. Two other factors
are that in low density areas wild pigs and other animals necessitate
[417] the fencing of gardens, a task which is easier for contiguous groups
than for individuals, and that in forest much wider fringe clearing
is necessary than in low second growth. The volume of fringe clearing per garden is much reduced if gardens are contiguous.

Introduction

121 The New Guinea Research Unit of the School of Pacific Studies of the Australian National University invited the author to evaluate the cognitive ability of groups of subjects who were being studied as part of a larger project. These were the Orokaiva people of the Northern District of Papua. Other related studies in the area had been or were being carried out at Inonda (Crocombe and Hogbin 1963), Gona (Dakeyne 1965), Sivepe and Borugasusu (Rimoldi 1966a, b), Ongoho (Crocombe 1964), the ex-servicemen's settlement scheme (Cheetham 1963) and in expatriate plantations (Howlett 1965).

131 The Orokaiva live on the Popondetta plain and in the Mt Lamington
197 foothills, and share mutually understandable languages. They have been described by Crocombe (1963) as follows:

> 105 The Orokaiva people number roughly 26,000 and are divided
> into about twelve tribes. The tribes are very loose units
> [161] and recognise no single leader and before European contact,
> [619] warfare within the tribe was not uncommon. ...there are no
> land rights at a tribal level. Each tribe is divided into
> [423] a number of named clans. A clan is seldom localised, and
> usually it is divided into a number of sub-clans which are
> [614] dispersed over various parts of the tribal territory. Each
> sub-clan holds rights over a specific area or areas of land.

177 There has been European contact of some form over a long period.
795 The people are perhaps best known by the work of Williams (1928 and 1930) in which he describes the earlier cult movements and the attempts to master and control new contact situations. Two of these were the cult of the Baigona men and the Taro cult. The former was concerned with healing and sorcery through a type of priest who was in communication with the spirits of the dead and now resident in various reptiles, particularly the snake. The latter was evidenced in sorcery through a priest who was possessed with the spirit of the Taro. Violent dancing or ecstatic movements often accompanied by a trance were not unlike the dance of St Vitus or St John which swept Europe in the fourteenth century (Sargant 1957).

648 The initial Japanese occupation of Papua took place in the
177 Northern District as the Japanese marched towards Port Moresby via

Table 1

The samples and agricultural systems

Village or group	Approximate population	Tribe	Type of terrain	Type of land tenure	Other research workers	Comments
Inonda	43	Sangara	inland plain	Higaturu Council scheme (low population density)	Crocombe and Hogbin	Supplemented by 10 from Hohota
Beporo (Gona)	500	Notu	coastal plain	Spontaneous resettlement	Dakeyne	
Sivepe	120	Sangara	inland hilly	Higaturu Council scheme (high population density)	Rimoldi	Supplemented by 3 from Pereko
Ex-servicemen settlers	150	various	inland plain	Individual proprietorship (with government loans for development)	Cheetham	From Isevene, Sangara and Girua
Plantation labourers	?	various	-	European plantations	Howlett	From Awala, Kagana and Mayoh
Ongoho	55	Asigi	inland plain	Communal tenure of cash crop land	Crocombe	
Borugasusu	180	Aiga	riverine	Traditional tenure	Rimoldi	

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Genesis of the Yega Scheme

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245 The term Yega Scheme has been applied by the Administration to
242 the cocoa-planting enterprise undertaken by the Yega people at
Ononda, four miles inland from Gona Mission.

245 On several occasions prior to 1960, the Yega people discussed
with the D.A.O., Mr M.H. Belfield, their desire to plant extensive
242 areas of cocoa. Suitable land was not available near the coast,
654 and it was not until early 1960 when an old pre-war road was re-
opened between Gona and Popondetta that access was provided to
423 suitable forest country further inland.[1] In March 1960 Yega
178 representatives advised the D.A.O. that land was now available
[491] and sought his advice and assistance in promoting cocoa production.
The land available was mature rain forest situated about
four miles inland, just north of Ononda Creek (see Fig.5).[A] This
land was part of an area over which the Bowori clan of Yega had
[614] exercised rights until they were completely wiped out in inter-
[726] tribal fighting with the neighbouring Ahora people. Their land
was never reallocated among the remaining Yega clans, but was used
as communal hunting land to which no one Yega clan had any stronger
claim than others. No complex pattern of clan rights applied in
(614) the area so there was no need for compromise among clans during
the allocation of blocks.[2] Allocation of this land, whether for
subsistence gardens or for cash cropping, was vested in the chief
Yega land custodian, Nixon Kairembora, who fully approved of the
cocoa project.

The land was inspected by the D.A.O. and pronounced suitable for growing cocoa. Investigations by the Department of District Administration showed that ownership of the area specified for the cocoa project was not disputed.

245 Agriculture and administration officials tried to avoid some
242 of the problems inherent in the Higaturu Council Land Registration
Scheme (see Crocombe and Hogbin 1963:89-96) by suggesting that
654 plantings be contiguous rather than in scattered plots of irregular
size and shape. Contiguous planting would make all blocks
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[1] The road was built pre-war by the Rev. Henry Holland and was used by the Japanese. Its reopening was mainly due to the efforts of the Anglican missionary in charge at Gona, Rev. E. Kelly.

[2] This exceptional circumstance and its bearing on the accord among clans which had prevailed, at least up to the time of writing, is relevant not only to studies of the Yega Scheme but also to the possible use of this scheme as a 'pilot' for future projects.

A,[For fig. 5 see Category 102, p.45--Analyst]

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accessible by road, enable more efficient agriculture extension services, facilitate pest and disease control, and permit a centrally located cocoa fermentary.

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To ensure competent local supervision of the establishment of the cocoa plantings, the Agriculture Department Extension Service built a village on the north bank of Ononda Creek. Here trainee agricultural field-workers lived while they worked with the Yega advising and assisting them in the unfamiliar tasks of laying out their blocks, 'lining' the shade trees and ensuring correct spacing of the cocoa trees. The D.A.O. entrusted a local Yega man (Napoleon Aiga of Sambori clan) with the supervision of this work. Although he is not a trained agricultural worker (he was a clerk in the agriculture office at Ioma when selected for the job), Napoleon is a man of great drive and ability; he had the confidence of the Yega and was able to direct and control the trainees who worked with the villagers in the early stages of the scheme.

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Beginning in May 1960, an area approximately 7 by 120 chains was rapidly cleared by communal labour with most of the men of all Yega clans taking part. Provision was made for a road down the centre of the cleared area; 48 blocks were marked off, 24 on each side of the central road on 5-chain frontages. The number of blocks was based on the number of men who originally showed interest in participating in the project, plus two special blocks: one was allocated to the mission and one beside the Gona-Popondetta road was reserved as the site for a future fermentary. The remaining 46 blocks were allocated by ballot to participants in the work. The 46 men to whom blocks were allocated represented almost all Yega lineages; those lineages not represented were ones in which only old people remained in the villages, the young men having left home to work in paid employment elsewhere. After the ballot, one week was allowed for voluntary exchanges before a firm list of blockholders was drawn up. This firm list was, however, still subject to alteration within the framework of the traditional Yega land tenure system. Any cultivator considered to be unsatisfactory could be disciplined by the land custodian; if a blocholder failed repeatedly to comply with the standards expected he could be dispossessed, and his block reallocated to another cultivator. One such reallocation did, in fact, take place late in 1960.[1]

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[1] The blockholder ignored three warnings from Nixon about his laziness. As a result he was dispossessed and his block allocated to another cultivator; compensation of $3 for work done already was paid by the new blockholder.

245 242 423 178 The Land (Tenure Conversion) Ordinance of 1963 altered the tenure position by permitting the granting of individual title to any blockholder who desires it. By July 1964, 17 blockholders had applied for registration of their blocks as the first step to obtaining individual title. When conversion orders were made in favour of these applicants, their blocks were no longer subject to traditional tenure.

With the establishment of individual titles, a pattern seemed likely to develop of dispersed homesteads on smallholdings. In the original clearing no demarcation had been made of the fourth (rear) side of each block since by common agreement each blockholder was permitted to extend his area of cultivation by clearing additional forest on that side. Limits to such clearing were set by Epa and Ononda creeks to the south, and by the Gena and Seseko clan boundary markers to the north. This meant that there was room for extension of each block to a maximum of seven to ten acres.

245 242 178 The initially cleared area of each block, about one and a half acres, was ready for planting with shade trees (leucaena glauca). By August 1964 each block had been planted with about an acre of shade and cocoa trees. In some poorly-drained sections, numbers of trees of both types had died but the drainage problem could, it was thought, be overcome by deep-ditching. Late in 1962 and early 1963 many young cocoa trees suffered a severe setback as a result of infestation by army worm (tiracola plagiata). Marked irregularity was noticeable in the growth of the cocoa trees: this may be attributed to the depredations of army worm and, to some extent, to micro-variations in soils or topography.

The irregularity of tree growth was reflected in the wide variation in production from block to block. Production of cocoa had commenced at Ononda almost exactly four years from the inception of the scheme. Many blockholders had not, in August 1964, started to pick their cocoa but others were already harvesting regularly and systematically. No attempt had yet been made to establish a co-operative fermentary on the site provided. Instead, [439] the Popondetta Cocoa Fermentary Pty Ltd made a monthly trip to collect wet beans from Ononda and two other centres. The price [435] in August 1964 for wet beans at the fermentary was 5½ d. per pound. The price paid at the villages was 3 d. per pound, 2½ d. per pound being deducted for collection expenses.

[434] Cash income earned by the Yega from cocoa was still very small. Work time expended by Yega villagers varied widely. In a few instances pods were picked the previous day but most people picked and opened pods on the morning of the collection. Pods were opened under the trees on the blocks; the wet beans were then carried in cooking pots, basins or sacks about half a mile to the collection

Table 2

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Ages of blockholders in the Yega Scheme compared to other Yega men of working age

Age grouping	Men with cocoa block		Men without cocoa block		Men working away from villages	
	No	%	No	%	No	%
Under 30	7	15	13	20	53	62
Over 30 and under 40	16	35	17	26	23	27
Over 40 and under 50	17	37	17	26	6	7
Over 50	6	13	18	28	3	4
Total	46	100	65	100	85	100

Note. Ages are in most cases estimates and for the last category estimates by informants.

Table 2 indicates that, of the 46 cocoa blocks in the Yega Scheme, 33 (or 72 per cent) were held by men aged 30 to 50, slightly more than half of whom were over 40. Only 28 per cent of the persons allocated blocks were either under 30 or over 50 but nearly half the persons not allocated blocks were in these groups. The larger number of old men without blocks is understandable. They had few needs other than food and betel nut and the cost of small luxuries like sugar and rice could usually be provided by their sons. On the other hand, there was a very strong desire to obtain cocoa blocks on the part of middle-aged men who did not yet have them. There were few men aged 40 years or over working away from the village, though most of them had been away during their youth. The table emphasizes the distinct preference of young Yega men to work for wages away from home rather than to remain in the village: 89 per cent of the men working away from the village were under 40. Other data showed that 79 per cent of all bachelors over 16 years of age were working away from home or had recently returned from wage employment.

434 In addition to their earnings from cocoa production, Yega villagers had four sources of income.

[439] [799] i. Exchanging surplus agricultural produce with the mission, which gave tobacco, razor blades, needles, fish hooks, salt, etc. in exchange to the value of one penny per pound weight of produce. This mission barter enabled the Yega to obtain small useful items with no loss of time, for even though prices at the Popondetta market were about three times higher, to get there required about half a day's walk in each direction carrying the produce.

434 438 ii. The marketing of agricultural and marine products and handicrafts. Yega participation in the Popondetta market held

161 162 in 1960[1] compared with the distributions determined by personal interview in November 1962 and July 1964.

361 166 242 245 Table 4 and Figs 4 and 5 illustrate the movement of people away from the coastal villages and the rapid increase in number and size of inland villages which followed the implementation of the Yega Scheme in mid-1960. The men interviewed gave two main reasons for this move inland. The men who were allocated a cocoa block moved so that they would be closer to this new field of work; those who were not allocated blocks moved in order to remain near to their relatives.

361 166 The movement inland began immediately after the start of clearing the cocoa blocks. In July 1960 a young unmarried man of Seseko clan moved from Beporo and took up residence in the D.A.S.F. settlement. He was soon followed by others from Seseko clan, many of them from Kanaunje and Niniyanda villages. These villages are furthest from the cocoa blocks and, being backed by swamps, have more difficult routes of access than other Yega villages. Convenient village sites were available for the newcomers on two patches of grassland known as Ononda and Binjapada. Seseko clan claimed [423] hunting rights to Binjapada and a Seseko lineage claimed cultivation rights to Ononda which had been used by Seseko members as a food garden some years previously. There was therefore no dispute over building sites. Even when some members of clans other than Seseko desired to move from the coast in 1962-3, they were allocated building sites on Seseko land close to the houses of Seseko members. The growth of Binjapada and Ononda villages is shown in Table 5.

The result of the migration inland was the development of a 'ribbon' pattern of settlement along the Gona-Popondetta road (Fig.5).A Binjapada was likewise a ribbon pattern on a side road. The houses in Binjapada were much farther apart than in the coastal villages. This is because the house sites were located close to cocoa blocks (Fig.6).B

A development which might have far-reaching effects upon the future Yega settlement pattern was the attempt by several holders of cocoa blocks to locate their dwellings upon the projected extensions to their blocks (Fig.6). As early as November 1962 the holder of block 16 had moved his home from Beporo village to a site on Binjapada grassland which he calculated would be the extension of his block (see Fig.6). By July 1964 his example had been

[TEXT CONTINUED ON PAGE 48]

A, B, [For Figs. 5 & 6, see Category 361, pp. 45-46--Analyst]

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[1] Calculated from the census taken by the author in 1964. Some degree of error is possible because of the movement of paid employees and their families.

Table 5

Permanent residents of new villages of Binjapada and Ononda
As at December 1962 (to nearest month)

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Informant	Village of present residence	Months since move	Village of last residence	Village of birth	Clan	Marital status
14	Binjapada	24	Beporo	Kanaunje	Seseko	M
1	"	12	Niniyanda	Kanaunje	Seseko	M
9*	"	12	Niniyanda	Kanaunje	Seseko	S
2	"	2	Niniyanda	Kanaunje	Seseko	M
4	"	2	Kanaunje	Kanaunje	Seseko	M
5	"	2	Kanaunje	Kanaunje	Seseko	M
6**	"	2	New Garara	Old Garara	Andere	M
7	"	2	Kanaunje	Kanaunje	Seseko	M
8	"	1	Surilai	Kanaunje	Seseko	M
24	"	0	Beporo	Basabuga	Gena	M
25	"	0	Beporo	N/S	Seseko	M
26	"	0	Beporo	Basabuga	Eupu	M
15	Ononda	12	Beporo	Kanaunje	Seseko	M
16	"	2	Beporo	Banumo	Seseko	M
17	"	2	Beporo	Banumo	Seseko	M
18	"	2	Beporo	Banumo	Seseko	M
3	"	2	Beporo	Gombe	Jambapa	M
10	"	2	Beporo	Banumo	Seseko	M
20	"	0	Banumo	Banumo	Seseko	M
21	"	0	Beporo	Beporo	Sambori	M
22	"	0	Beporo	Beporo	Jambapa	M
23	"	0	Beporo	Beporo	Jambapa	M
12	Ononda (D.A.S.F.)	30	Beporo	Banumo	Seseko	S
11	"	12	Beporo	Banumo	Seseko	S
19	"	12	Beporo	Banumo	Seseko	S
13	"	2	Beporo	Gombe	Kurou	S

[732] * Brother of informant No.1, whom he helped. He was a deaf mute and had not been allocated a cocoa block.

** He is a non-Yega man who was accepted into the Seseko clan of Yega. He was allocated a cocoa block in the Ononda Scheme and his son was adopted by a Seseko man from whom the boy could inherit land. At the time of the second visit to Yega in July-August 1964 this man had rejoined his own people and his block was reallocated to a Yega man.

[423]
[425]

361 followed by the holders of blocks 14, 18 and 46.[1] In the develop-
166 ment of the new settlement pattern at Binjapada, the existence of
an elongated grassland area lying roughly parallel to the cocoa
blocks cannot be ignored. The absence of such a grassland area in
the vicinity of the western section of the cocoa blocks was one of
the main reasons why no similar 'shoestring' village developed
there. Holders of blocks in the western section built their new
homes either in the village of Ononda or in smaller hamlets beside
the Gona-Popondetta road at distances up to two miles from their
blocks. Those who built in Ononda were in general men with no
previous cultivation rights to garden land close to the cocoa
361 blocks. After establishing their homes in Ononda village most of
these villagers cleared rain forest in the Ononda area, thus
166 establishing their cultivation rights to nearby areas of land.
241 Villagers who established new homes along the road, on the other
hand, in most instances built upon or near to land over which they
423 possessed cultivation rights. To the men in this group, proximity
to food gardens was a powerful subsidiary reason for moving inland.

Extension of the Yega Scheme

178
245 The foregoing description shows that the Yega Scheme was a major factor in recent changes in Yega land use, land tenure, cash income, work organization and place of residence. The process begun by the Yega Scheme generated further change, particularly amongst those Yega who did not obtain cocoa blocks at Ononda.

245 In February 1963 many Yega were disappointed because they had no individual area of cocoa. It had already become apparent to most of them that a half or quarter share in the block of a relative would return them very little income; all those who had missed allocation of one of the Ononda blocks were, therefore, very eager to clear a further block. Clearing did, in fact, begin on a new block parallel to and south of the Ononda block, the week the author left the area in mid-February 1963. However, very soon after this, the Yega organizer of cocoa planting, Napoleon Aiga, was posted by D.A.S.F. to another district, and instead of continuing with another 'block' development, people began clearing and planting in scattered blocks. Seven blocks totalling about eight acres were planted in this manner. Several aspects of these plantings require comment.

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[1] According to the author's rough pace and compass traverses, two of these men had in fact built their dwellings on neighbouring blocks. Accurate surveys were therefore needed in order to avoid future difficulties.

245 All plantings were made on the south side of Ononda Creek in
423 the area which the Yega claimed because it was their Bowori
(extinct) clan land but which the Ahora also claimed by right of
conquest. The Yega decided to reinforce their claim by occupying
at least a portion of the disputed territory (Fig.7).

241 A large area of rain forest was cleared for food gardens in
245 addition to the cocoa blocks planted. Permission to clear was in
all instances given by the land controller, Nixon Kairembora.
423 Swiddens were cleared by members of Sambori (1), Jambapa (5),
[614] Konambo (1), Eupu (1) and Seseko (3) clans. Cultivation rights
to the land on which these swiddens were made would then be vested
[613] in the lineages to which the individual gardeners belonged.

166 One instance of change of residence as a result of these new
361 clearings was noted. Three Jambapa brothers built their homes on
245 Jamberoda grassland near which they had cleared a swidden and
241 planted food crops and cocoa (about half a mile south of Ononda
village and well into disputed Yega/Ahora territory). These
houses were the furthest extension of the ribbon pattern of settlement developing along the Gona-Popondetta road; this hamlet typified the Yega trend away from large nucleated settlement to a farmstead pattern in which homes were dispersed on or near the main garden and cash crop areas.

245 In March 1964 a group of 23 Yega men, only one of whom had been
423 allocated a cocoa block at Ononda, decided to clear another large
tract of rain forest which would then be divided equally among the participants in the scheme. The site chosen for this new block-type development was Berojou near the south-west Yega/Beuru boundary. This boundary had been declared by the Land Titles Commissioner, surveyed, and marked by cement boundary posts. Though final siting arrangements for the individual blocks had not been completed it was expected that blocks would be approximately 10 chains frontage by 20 chains depth (frontages double those of the Ononda blocks).

245 The Berojou scheme differs in two major respects from the
423 earlier Yega schemes at Ononda. Firstly it was sited on land
over which certain clans, Jambapa and Kurou, had recognized rights
614 of allocation and secondly all members of the group concerned in
602 the development were members of these two clans or had close affinal
ties with them. Men related to Jambapa were allocated blocks on Jambapa land while men related to Kurou were allocated blocks on Kurou land. These relationships illustrate the way in which rain forest was traditionally cleared by the Yega. A close affinal tie was usually essential before a person could be invited to join another group and clear rain forest belonging to another clan.[1]

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[1] Ten men in this group planted the land of other clans. In six cases their mothers were members of the clans on whose land they

245 Work on this scheme had not progressed far at the time of observa-
476 tion because of unseasonable weather. Underbrush and small trees had been cut by each individual on his block but it was decided to wait for dry weather before cutting the big trees by communal effort. All Yega would then be invited to help and helpers would be recompensed after the clearing of each block by a feast given by the blockholder and his family.

245 As with the Yega Scheme, the advice and help of Agricultural
(242) Extension Service officers was requested and given. The site was inspected and soil suitability evaluated before the Yega started
[484] clearing. However, although the layout of the Berojou blocks closely resembled the Ononda blocks, they are half an hour's walk
[487] along narrow footpaths from the Gona-Popondetta road, the only vehicular road in the area.

245 The people concerned in the scheme lived in various places.
361 Most lived in the Konje area, one at Mumburada, one at Gatara, while eight lived in Beporo and one further away at Gombe. How-
166 ever, it was likely that the Beporo and Gombe people would move inland in the near future. There was at the time no talk of moving home sites to the new cocoa blocks at Berojou.

Conclusions

241 The clearing of rain forest for planting blocks with permanent
245 tree crops whose produce was to be sold for cash was a radical
178 departure from traditional Yega land usage. The Yega Scheme in-
423 corporated traditional principles of land tenure and work organization with modifications to meet the changed circumstances of today. Features deriving from traditional precedents were:

[476]
[464] (i) the use of communal labour to clear the forest, and the subdivision of the cleared area among those who helped in the work;

(ii) the absence of any documentary record of the transference of rights to individual right holders (although this was later provided under new legislation);

[464] (iii) the organization of group labour for certain tasks even though recruitment of members might not necessarily be based on purely traditional criteria;

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245 (continued)
423 planted, in one case the wife was, in one case the father's sister's
219 husband, in another the half-brother by a different father and in
602 the last case, the father of a half-brother.

241
245
178 (iv) the strong desire of individual members of extended families
each to have personal control of a piece of land and of
(423) useful trees on that land.

The aspects which had little precedent in traditional custom were

(i) the systematic layout of blocks;
(433) (ii) the production of crops for sale;
(242) (iii) the supervision and guidance of Agricultural Extension officers and workers, most of whom had no kinship ties with the Yega;
(361) (iv) the provision for the location of a blockholder's dwelling on the block itself rather than in a village.

The value of the Yega Scheme is this combination of old and new
which was achieved by basing the scheme on traditional precedents
in so far as they were appropriate and incorporating innovations
where necessary. The main innovations were organizational and
technological - involving new crops, new husbandry techniques, new
241 processing methods and equipment. There was an increase in some
245 forms of group activity, for example bush clearing by all the Yega
(whereas bush clearing was traditionally carried out by sub-clan
178 groups), and the proposed co-operative fermentary and marketing
464 facilities. On the other hand, a greater dispersal of residence
and the adoption of new mores were responsible for some diminution
of traditional forms of group activity. In pre-contact times the
family was the basic unit for garden work but larger groups formed
for other activities. With the addition of cash crops, agricultural
work took more time and many of the larger groups for fishing and
social activities atrophied.

The rights of the individual in cash cropping land will become
241 more marked in relation to those of the sub-clan and tribe. Whereas
245 food gardens were held by individuals or small descent groups and
178 rights at this level were flexible due to rapid demographic changes
and the system of land rotation, cocoa is a relatively permanent
423 crop and the planter is associated all his life with the land on
which the trees are planted. With change in the legal status of
the land the rights of the social group to the cash crop lands are
certain to diminish in favour of individual rights.

361 The new pattern of residence, showing tendencies towards 'ribbon'
development and particularly towards the dispersal of homesteads,
178 varied markedly from the traditional form. Most significant of
all variations from tradition was the location of homesteads by
individuals on potential extensions to their cocoa blocks. With
(423) the registration of individual title to these lands it seems likely
that this trend will continue. If the trend towards dispersion

474 of Orewo lineage of the Kurou clan of Yega, who had been educated
to Standard IV at Gona Mission School and had spent the year before
241 the war working at Bunting's store at Cape Killerton. Just prior
to the war he joined the Papuan Infantry Battalion and became a
corporal. During the war an Australian soldier with whom he was
friendly convinced him of the possibility of raising money from
short-term crops. The Administration had introduced copra-making
much earlier, but prices were low and there was little enthusiasm
for the crop.

Even before the formation of the G.P.T., Samuel had convinced most of the Yega of the desirability of co-operative farming. Subscriptions were called for: money was available from war damage compensation and most Yega households subscribed from $10 to $20, each person contributing as much as he wished.

Clearing bush for the co-operative gardens was begun at four sites in mature rain forest at Ononda, Garara, Mumburada and Ingaba-Betari. Little information was available on the subsequent operations at Mumburada and Ingaba-Betari but some details were obtained for the Ononda and Garara projects.

Samuel placed an ex-serviceman comrade in charge at Ononda. A
site was selected by Nixon Kairembora, the Yega 'land custodian',
[628] between Ononda and Epa Creeks.[1] Meanwhile some of the neighbouring
Beuru and Ahora people obtained Samuel's consent to join the Yega
in their co-operative efforts, paid him money and were permitted
by him to assist with the clearing of bush at Ononda.[2]

Crops were planted at Ononda by co-operative effort for two
[439] years. The man in charge says that good crops of peanuts were
grown and sold to the Administration, being taken by headload to
[454] the coast, thence by canoe to Cape Killerton. The money from the
sale of these crops was paid to Samuel Ungega who banked it at
Higaturu. Unfortunately, no records of the amounts obtained are
now available.[3] Large quantities of sweet potatoes were also

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[1] For the history of this land see pages 30 and 48 and Fig.7 of the previous article.

[423] [464] [2] When asked whether the fact that the Ahora and Beuru had cleared bush at Ononda would strengthen their claims to the land the Yega replied in the negative. They stated that non-Yega were employed only in the capacity of workmen: they were paid in produce at the time and had no further rights.

[768] [3] One of Samuel's brothers, who was a young boy at the time of Samuel's death in the Mt Lamington eruption, said he remembered numbers of Samuel's books being burned and thrown away in the bush when relatives went through his belongings.

FOREWORD

101 In the central part of the Northern District of Papua
there is a concentration of approximately 26,000 people who are
[619] known collectively as the Orokaiva. The term Orokaiva came
into use some years after European contact, and before that time
the Orokaiva did not recognize themselves as a single group, nor
did they all interact for any common purpose. Although they do
not claim common ancestry, the various sub-groups possess a
relatively homogeneous cultural heritage. The Orokaiva speak
several dialects which are mutually intelligible and belong to a
common language.(1)

241 During the last ten years there has been considerable
development of commercial agriculture within the area. Many
241 people have planted cash crops on land held under customary
423 tenure; some villages have planted communal blocks on land set
657 aside by the rightholding clans; the Higaturu Local Government
Council (which serves most of the southern part of the Orokaiva
culture area) has instituted a scheme for the allocation of cash
crop lands to individuals, and for the registration of the land
with the Council; some Orokaiva have taken up agricultural
leases of small, family holdings on government land, and they
are provided with capital, extension services and registered
land titles; others again have entered the plantation economy
(none as entrepreneurs as yet, but many as workers on European
plantations in the area); and at Beporo (on the coast) the people
have embarked on a new experiment involving the cutting of clan
land into rectangular blocks, allocation by ballot, and the planting of cash crops by families.

121 The aim of the Unit's research is to determine which of these systems has been or promises to be most productive (in the economic sense) per man, per unit of capital and per acre of land; which of them is best suited to the introduction of

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(1) The term Orokaiva has no precise connotation but is here used in its widest sense to include such culturally related groups as the Notu, Binandere, Aiga and Sangara. The word is often used in a more restricted sense to refer to those people (predominantly speakers of the Kombu-Sangara dialects) who are served by the Higaturu Local Government Council.

224 Snares and traps are set at strategic points to catch wild pigs. A snare consists of a wire noose attached to a sapling which is fastened under tension to a triggering device. Snares are usually concealed along paths in abandoned gardens. The traps are of two types: the pit-trap which is dug two to three feet deep along a path or near a hole in a fence and has old spear heads and sharpened hardwood stakes "planted" in the floor; and the jump-trap which consists of hardwood spikes set at an angle in the ground with the points facing a low "gate" in the fence, so that a pig which jumps the "gate" impales itself on the spikes.

226 There is some fishing in the local rivers throughout the year, but most fish are caught during the dry season when the rivers are low and the water is clear, and spearing is then
222 easy and profitable. The people forage for firewood, wild yams, bush cabbage, honey and other foods. Although these products may make an important contribution to diet, they seem to provide only a small proportion of the total volume of food consumed.

131 Boundaries: The external boundaries of the Inonda lands are known in detail where they follow or cross the Sambogo and Girua rivers, and where they cut the main road. Elsewhere the people recognize only general boundaries which follow hill-tops or other natural features. Within Inonda the Girua and Sambogo rivers and their tributary creeks form the most important boundaries and each area of land is known by some physical feature, frequently the name of the adjacent creek. On the southern side the land extends back into the mountains in some cases to include the whole watershed of the creeks which feed the Sambogo, and in others to meet the boundaries of the Mosou and Tandai'undi lands.

241 Each of the lands framed by the creeks is divided between the lineages. Boundaries are marked by trees (es-
423 pecially hauga and poponda) and other natural features. The gardens of different families and of different individuals within families are marked, sometimes by rows of crotons, but more usually by continuous lines of dead saplings laid end to end between trees or stumps. Individual gardens are not named but are referred to by the name of the person who plants them.

CHAPTER 2 - LAND TENURE

619 The concept of the tribe as a group of related clans exists among some of the Orokaiva people, but among the Inonda villagers at least it seems to be only vaguely defined and to have [177] little if any relevance to land matters. The Andiriha and Jego'undi sub-clans are referred to in some reports as belonging to the Ihane'embo tribal group and although Inonda informants recognize some affinity with the other clans in this group, they say that the name Ihane'embo came into use only after European contact.

423 Land rights were found to be distributed at the following levels of social segmentation:

The rights of social units

423 614 The sub-clan: All land investigated in and around Inonda was found to be associated with one or more sub-clans.(1) It is a common misconception on the part of outside observers that any particular piece of land can be associated with only one such group. This is certainly not the case in the Inonda area and from superficial enquiries it appears that the Inonda case is not unique.

Where more than one sub-clan claims rights in an area the rights of each are determined by two factors - the circumstance under which the original division of rights took place; and the temporal, demographic and social changes that have occurred since the original division of rights.

This may be illustrated by the Inonda situation where

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(1) Several atypical instances have been noted wherein rights are held by the clan as a whole rather than by a particular sub-clan. This may be exemplified by the case of the Aramba lands which are described on page 23.

423 614 rights to the majority of the lands are shared by three sub-clans: Tandai'undi, Andiriha and Jego'undi.(1) In view of the extent of warfare and population movement in the past, it is likely that various clans or sub-clans have occupied this land at various times(2), but the passage of time erodes away the historical facts from the memories of the living and what is important to-day is not the facts themselves so much as the traditionally accepted version (or versions) of them. The accounts given to us accept the Tandai'undi as the 'original' rightholders in this area, and the Andiriha and Jego'undi as having acquired certain rights which are perpetual provided occupation is continued and relations between the sub-clans remain amicable. The stability of residence which resulted from the abolition of warfare has no doubt resulted in a longer term identification of particular groups of people with particular areas of land, and this identification can be expected to become increasingly closely defined with the passage of time and the increase of population.

423 614 425 As noted on pages 14-15, the Tandai'undi transferred rights in the Inonda land to the local Andiriha sub-clan in return for valuables, pigs and women. The precise rights obtained by this transfer are not clear for some contingencies which have subsequently arisen (such as cash cropping) were not foreseen at that time and other conditions were tacitly understood in terms of indigenous concepts of rights to property. The deal undoubtedly gave the Andiriha rights to plant food crops, hunt and forage, though it seems likely that they were not given rights of disposal outside the clan (and probably not outside that particular sub-clan which negotiated the deal).

Presumably the rights of the Andiriha can be expected to strengthen with the passage of time and continued occupation, but even though they have now enjoyed nearly two

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(1) It would not be surprising if, in the event of an investigation by the Lands Commission, Urio people also claimed rights to this land (i.e. if they wished to challenge Mr. Oelrichs' earlier decision - see page 15).

(2) This seems to be general in the Orokaiva territory according to Williams, 1930:151-60; Chinnery and Beaver, 1915 Appendix 2.

423 generations of undisturbed occupation and have reinforced their
position by frequent marriage connections and subsequent kinship
614 ties with the Tandai'undi, they still recognize that some residual
425 rights are held by the Tandai'undi. The extent of these rights
cannot be closely defined except in relation to specific situations. For instance all parties seem to be agreed that the Tandai'undi could not plant the Inonda land without the approval of the leader of the Andiriha sub-clan and in fact they neither plant nor hunt there. Likewise, it is agreed that if the Andiriha died out their rights would revert to the Tandai'undi. Although there is no disagreement about rights of this nature, trouble would almost certainly arise in the event of incidents (such as cash sale of land to an outside group) for which there is no traditional precedent.

423 It is perhaps significant that most of the Inonda
614 people have planted their cash crops on the other side of the
Girua river on land to which the Tandai'undi have no claim. Moreover, a recent survey by the Lands Department shows Inonda as Tandai'undi land, though the Inonda people consider this to be an error.(1)

614 According to the oral history of the Inonda people,
425 they have acquired land rights at various times by discovery and
settlement of vacant land (at Aramba), by permissive occupation
173 (at Wauta and Sambogo) and by customary transfer (at Inonda).
Conversely they have lost rights by defeat in war (at Aramba) and by voluntary abandonment (at Wauta and Sambogo).

614 The Inonda people have shifted their village at least
425 eight times in the course of the past fifty years and on the first
three occasions they shifted to completely different areas of
423 planting and hunting land. With each shift they have acquired
some new land rights and lost others. In no case have they acquired all rights to the lands they moved onto and in no case have they lost all rights to the lands they left.

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(1) Map held by National Mapping office entitled, "Land Tenure in the Ihane'embo Native District, Orokaiva, Northern District" prepared by W.A. McGrath 7.4.1959.

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When they were originally chased out of Aramba the defeated people fled but they still claimed residual rights in the Aramba land and hoped that their former rights could be reactivated at a later date. Had government control not been introduced at that stage they may either have fought and regained the land, or have abandoned it to the conquerors. In fact, although the conquerors had control of the land, the question of residual rights lay in abeyance until the Mt. Lamington eruption in 1951 when most of them were killed. Thereafter, the people of Inonda (along with Andiriha and Jego'undi people living in other villages) began to reassert their dormant residual rights by paying periodic visits to the area to gather wild foods. The Andiriha clan have delegated planting and hunting rights to the Havoni'undi and Umburahaha clans which live nearby at Sewa.(1) They claim to have made it a condition that only subsistence crops be planted. Any attempt to separate the residual rights of the various sub-groups of the Andiriha and Jego'undi from one another, and from the rights of conquest of the Sangara tribes, and from the rights of occupation of the Havoni'undi could only be made on arbitrary criteria.

During their stay with the Sauhaha clan, the Andiriha acquired gardening rights which they relinquished on their departure. Since then the Andiriha have frequently acquired wives from Sauhaha and have thus reinforced their earlier connection by these affinal and maternal links. As the Inonda area is short of sago, which grows in abundance on Sauhaha land, these relationships enable the Inonda people to continue to make sago on Sauhaha land.

In the course of their residence at Sambogo, members of the Inonda sub-clans cleared garden sites and planted sago, coconut, breadfruit and other trees from which they still collect fruit. The Inonda people claim that as their forefathers

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(1) The Jego'undi lands at Aramba are looked after by members of that clan who live at Bofu and Sewa. The claims of the Andiriha and Jego'undi to the Aramba area were challenged by survivors of the Sangara people shortly after our field survey was completed. In recent months all parties have increased their "acts of use" in the area. The case is now before the Native Lands Commission.

614 425 423 cleared the virgin forest, any of their number could return and take up residence on the site of their previous village and again use their abandoned gardens (which are now covered with second growth). The area is too far distant to be planted while living at Inonda. On the other hand they recognize the residual rights of the Tandai'undi to the garden land, and the exclusive rights of the Tandai'undi to hunt in the bush and fish in the river. It is apparent that some rights in the area are retained by each party, but it is probable that the Inonda people could not in fact resume residence there without further negotiations with the Tandai'undi.

About twenty years ago a man of the neighbouring village of Urio who had no sons of his own (nor any brothers with sons) gave a large block of land named Sesehauta, which lies adjacent to Inonda, to his sister's sons - the members of the [574] Jego'undi sub-clan of Inonda. In an attempt to avoid future dispute he held a feast to mark the transfer. At the feast, the Jego'undi gave pigs, taro and traditional valuables to their mother's brother and these were distributed among his clansmen. About two years ago the people of Mosou came, at the suggestion of Native Affairs officers and with the approval of the Jego'undi, and established their village on this land. They did not make any payment, nor do they propose doing so, though they do make occasional informal gifts of betel nut and sago to the Jego'undi. Although most Mosou people still plant on their own lands a mile or two away, several of them plant on the Jego'undi land. The Mosou people do not hunt on this area as they have ample other hunting land, but the Andiriha of Inonda sometimes do. This is another case of land rights being shared by several clans and sub-clans - the donors who retain residual rights, the donees who hold some current use rights, the Mosou people to whom some rights of residence and land use have been delegated, and the Andiriha of Inonda with whom the Jego'undi sometimes share hunting rights and who consider that, as the dominant sub-clan, they should be consulted on questions of disposal or transfer of rights to the land. Neither of the two adult members of the Jego'undi in Inonda have sons, though one has daughters. The future rights to the Sesehauta land will presumably remain in the balance for some time.

Other sub-clan rights include those to burial grounds
614 and tracks. Once land is set aside and used as a burial ground
423 it remains vested in the descent group even after it is no longer
425 used for burial. Burial grounds may, however, be a post-
764 contact innovation, for in the pre-contact era the dead were
[177] sometimes buried under the houses in which they had lived. In the case of tracks, however, the descent group which holds the surrounding land retains reversionary rights and in the event of the tracks being no longer used by the community they revert to the relevent descent group. There are two burial grounds at present in use in Inonda - one for Christians and the other for pagans. There are also old disused burial grounds adjacent to the sites of previous villages.

The lineage: The Andiriha sub-clan of Inonda is
613 divided into four lineages but the Jego'undi sub-clan consists of
423 a single lineage. After rights to the Inonda lands had been ac-
425 quired from the Tandai'undi it was decided that the mountainous hunting lands would be held in common by the Inonda people, but the garden land, the grassland and at least some of the foothills were divided among the lineages. Some informants claim this was done almost immediately by the head of the joint sub-clans, but it seems unlikely that all the lands were divided at this time. All agree that some land was allocated at the time of the transfer, but some maintain that not all of it was and that identification with particular lineages in many cases followed later clearing.

While most lands are said to have remained with the lineage which originally cleared them, some have changed hands. For example, when the Andiriha people first came to settle in Inonda they obtained their seeds and planting shoots from the Jegotumo (an Andiriha lineage - not to be confused with Jego'undi sub-clan) which was then living in Hohota. The Jegotumo also assisted by providing one of the brides and some of the valuables for the payment which was made to the Tandai'undi, and thus acquired a right to the Inonda lands although they did not actually exert their rights at the time. Some years afterwards, however, when they felt that they were being subjected to sorcery in Hohota, they came over to live in Inonda and were granted rights to a

613 piece of land named Ombarahambo (which had previously been held
423 by the leading Joremba'embo lineage). Some of them later re-
425 turned to Hohota, while others remained in Inonda.(1) Later
again, one of the original lineages (Paru) died out and its lands
have been absorbed by the remaining lineages.

The Jego'undi sub-clan was allotted land at Kakitasuru and Ajerita. In later years a Jego'undi man cleared a piece of virgin bushland at Eumo and it is consequently regarded as their prerogative to plant that portion.

613 The following table showing the lands of each lineage
423 in Inonda was compiled from incidental data and may well contain minor discrepancies. It will be noted that the Joremba'embo
lineage is divided into two sub-lineages. A sketch map of the
land is shown on page 105.[A]

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(1) The Jegotumo are now divided into two distinct sub-lineages, one in Inonda and the other in Hohota. While they function as a single lineage for certain social purposes, the Hohota sub-lineage does not exercise any land rights in Inonda. The Inonda sub-lineage, on the other hand, continues to use some trees and gardening land in Hohota.

A [See Category 102, p. 105--Analyst]

Lineage	Lands in Inonda	
613 423 Joremba'embo: This lineage is not represented in other villages. It is to this lineage that the sub-clan leaders have belonged since the village was established. This lineage is subdivided into two sub-lineages.	Kofuretta	(First sub-lineage)
	Jombata	(" ") Originally belonged to Paru lineage (now extinct)
	Topohambo	(First sub-lineage)
	Pujota	(" ")
	Jangi	(" ")
	Kendahambo	(" ")
	Hamhambo	(" ")
	Inonda	(" ")
	Kumbara	(" ")
	Ombarahambo	(" ")
	Peu	(" ")
	Eumo	(" ") Originally belonged to Paru lineage
	Jegaratapema	(Second sub-lineage)
	Jawahe	(" ")
	Araruta	(" ")
	Hafa	(" ")
	Hahemo)	Given direct to the councillor by his mother's father, a Tandai'undi man.
	Mimina)	
Otera'undi: Another branch of this lineage lives at Jegarata.	Eumo	
	Ajerita	
	Homa	
	Peu	
Darafa'embo: Other branches of this lineage live at Hanakiro and Hohota.	Hondetta	
	Soruta)	Originally held by a Joremba'embo man whose wife was from Darafa'embo lineage. Rights then passed from a son who had no issue to an adopted son in Darafa'embo.
	Jegaratapema)	
	Hafa)	
	Ombarahambo)	
Jegotumo: Another branch of this lineage lives in Kahondetta. The Inonda branch fled from Aramba direct to Hohota where they obtained (and still hold) land by conquest from the Urura people.	Ombarahambo	
	Homa	
	Kakitasuru	
	Inota	
Jogo'undi sub-clan (comprises only one lineage)	Wetufota)	Originally held by Paru lineage of Andiriha sub-clan.
	Jonita)	
	Embasari)	
	Topohambo)	
	Kakitasuru	
	Ajerita	
	Eumo	
	Seaahauta	Given by mother's brother.

592 **The household:** This usually functions as a single unit of food production and consumption. In the case of a polygamous household, however, each wife plants and cooks separately, and in extended families which accommodate one or more unmarried adults these usually have individual food gardens though their produce is pooled and cooked for the whole household.

592 423 Land rights exercised by the household as a unit are restricted to usufructuary rights for the production of short-term food crops. This situation is analysed in more detail in the following section.

423 613 614 **The individual:** The land rights of individuals are predominantly a function of their status in relation to particular sub-clans and lineages. From data collected in Inonda we can recognize four distinct statuses:

(1) **Primary membership:** This is the status of persons who were born or adopted into the descent group and who are domiciled within it. Of the eleven adult males in Inonda, nine were primary members of either the Andiriha or Jego'undi sub-clans. A marginal case not included above is that of the ex-leader of the Inonda village who recently shifted to take over a farm about two miles away on the Girua resettlement scheme. He visits the village frequently and is still treated for most purposes as a primary member.

(2) **Contingent membership:** This is the status of persons who have been primary members, but have subsequently left the village (either at marriage or otherwise) to live elsewhere. They do not normally lose all their rights by doing so, though the nature of their rights changes. A contingent member, it seems, can generally regain primary membership by returning to reside in the sub-clan (as frequently happens with widows, returning migrant workers etc.). We are aware of eight contingent members of the Inonda sub-clans. Four of them are women who are married to men in other villages. Of the four men, one is away at work in Port Moresby, one is living in his mother's village and will probably remain there, one lives on the land of his deceased sister's husband in another village and the fourth lives in the village of his mother's new

423 husband and uses the latter's land.

613
614 (3) Secondary membership: This status is held by the children of contingent members of a descent group. Most people can claim secondary membership of their mother's father's lineage and clan. The degree to which the rights associated with secondary membership are in fact exercised appears to depend on the distance from the mother's village and the amount of contact with her family.(1) Although no attempt was made to compile an exhaustive list of secondary members of Inonda sub-clans, incidental information was collected on eight such persons. The children of secondary members of a descent group may be regarded as distant secondary members but, although in exceptional circumstances a distant secondary member may exert land rights in that group this is in fact a rare occurrence.

(4) Permissive membership: This is the status of those who reside in a sub-clan or lineage but do not belong to it by birth or adoption. They are admitted under particular circumstances and generally only for such time as they observe the conditions appropriate to that admission. Of the eleven adults in the village who have only permissive status with the Inonda clans, eight are wives of Inonda men, one lives with his mother who is now married to an Inonda man and the remaining two are a married couple who have two daughters married to Inonda men.

In summary, primary members are linked to the descent group by both descent and residence, contingent members by descent and previous residence, secondary members by descent only and permissive members by residence only.(2) There are of course marginal or special cases in each category, but each person in Inonda was found to fall into one, two or

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(1) Most instances cited related to the taking of produce from the land of the mother's father or brother.

(2) The sub-clan membership status of adults in Inonda was as follows: household heads, 7 primary and 1 permissive members; wives, 9 permissive members; others, 3 primary (2 men, 1 woman) and 2 contingent female members (the latter visiting).

423 three categories in relation to particular clans, i.e. a man
613 may be a primary member of an Inonda sub-clan and a secondary
member of his mother's clan; or a married woman may be a
614 contingent member of her father's clan, a secondary member of
her mother's clan and a permissive member of her husband's
423 clan. Each category may be sub-divided according to sex, for
the rights of males in each category are in some respects
562 different from those of females. Hunting rights, for example,
are never exercised by women though occasionally a husband
hunts on the land of his wife's sub-clan. Likewise food gardens
are seldom planted by a married woman on land in which her
lineage has proprietary rights; and men quite often harvest tree
crops from their mothers' lands, though women seldom do so.

614 The people of the Andiriha and Jego'undi sub-clans
of Inonda recognize all other members of their respective clans,
613 wherever they reside, as kinsmen. Although distant kinsmen
423 visit for feasts and ceremonial occasions, only those persons
who can trace descent from the original Inonda settlers have any proprietary rights in the Inonda lands. It is said that any clansman who was evicted from another village would be given asylum here and provided with whatever land he needed for sustenance, but this has never occurred in fact, with the exception of the Jegotumo who came over from Hohota, though in that case they had contributed a bride, pigs and valuables to the exchange at the time of acquisition of the Inonda lands.

Individuals normally acquire their land rights only as a function of their status with respect to particular descent groups but such rights are acquired from an individual within the descent group rather than from the descent group as a whole. As stability of residence strengthens the rights of particular descent groups so also does it lead to the clearer definition of the rights of individuals.

The status of adoptees varies according to in-
614 dividual circumstances as the following examples show. About
613 fifty years ago the Andiriha (who were then living at Sambogo)
423 attacked a village of a neighbouring but unrelated Managalas
599 tribe. Some of the inhabitants were killed and others fled.
Two small boys who were captured were adopted by an Andiriha

614 man and both are now aged residents of Inonda. Having no
613 other source of land rights they became accepted as primary
(but perhaps less privileged) members of their adoptive father's
423 lineage and sub-clan and were given rights to some of his land.
590 These are still held. One of them married an Inonda woman and his children have acquired some rights from their father and some from their mother. The other man married a woman from the neighbouring Urio village. He has no children and lives with his only adopted daughter's family. He is old and senile and cannot leave the house. When all the lands of the village had been covered by our survey, none had been mentioned as belonging to him. When the matter was queried it was explained that technically he had rights in the lands of his lineage of adoption, but that as an aged dependant without issue, these rights would lapse on his death. In practice they had already lapsed.

[848] Two illegitimate children have been adopted by the father of their respective mothers (who were sisters). They will acquire land rights from him in the same way as if they were his own children. (His only born son is at present teaching in New Britain). In one case, however, the mother's present husband has also offered to make land available to the boy when he grows up. In the early stages at least he would acquire only permissive rights to this land.

590 In the event of the death of a local man who has
768 young children, the children will need adoption in so far as
foster care is concerned, but not necessarily in so far as land
428 rights are concerned. A current example is that of the death of the only resident adult member of the Oiwa'undi lineage. A man of Jegotumo lineage took in the deceased's wife and "adopted" his children, but it is understood that they will inherit their land rights from their father, though in the event of need they could get land from their adoptive father. The adoptive father at present acts as 'trustee' for their lands.

A marginal case is that of a young unmarried man of a distant tribe whose mother recently remarried to an Inonda widower who has no children. The young man lives and plants with the couple. His mother's new husband speaks of him as his adopted son and says that if he remains in the village he will

597 inherit rights to some of his adoptive father's land, but most of
the land will pass to the adoptive father's brother's children. If
768 the adoptee does not remain in the village he will acquire no
428 rights. The other children of the new wife remained in their
home village with their father's kin. They will acquire no
rights in Inonda.

In fact the fathers of over half of the Inonda men seem to have died before the children reached maturity. Most men, therefore, have been in an adoptive relationship, though in varying degrees, and one man had three adoptive fathers in succession. If land is readily available adoptees most frequently inherit from their own fathers, but if this is not convenient, rights can be acquired from the adoptive father.

There is usually no ceremony to mark adoption but it is of interest to note that the status of adoptees (and others whose status within a descent group is vague or marginal) is to some extent fixed by the government census. This is no doubt unintentional on the part of the census-takers, but we have frequently heard people say that a certain person should get his rights from a particular man because the patrol officer recorded them together in the village book; or in a particular village because his name appears in the register of that village.

Rights in relation to categories of land

423 House-sites: The various house-sites in Inonda
were allotted by informal discussion at the time the village was
361 set up. At first the Andiriha built their houses on the northern
side and the Jego'undi on the southern side of the village square
but the Andiriha have subsequently expanded to the western and
southern sides. The eastern side is occupied by the government
rest house. Where two brothers live in separate households,
their houses are adjacent, as are those of fathers and sons.
[613] House-sites of members of the same lineage are contiguous except in the case of a recently married man who had to build on
another site within the village because the area occupied by his
lineage was full.

[425] There do not seem to be any specific boundaries between houses, and rights to any particular house-site are said to

429 361 [425] be available to any villager if another abandons them and does not intend to rebuild on that site. The people can, nevertheless, point out the sites of the houses of particular individuals in former villages and in some cases these are marked by coconut or other trees. It appears likely that the ideal Orokaiva pattern was to occupy a series of village sites in turn (following the rotation of garden sites) but the Inonda people have not been settled long enough in one area for the rotation to become established. The people today claim that individuals and lineages retain rights in economic trees growing on former village sites but that rights to the house-sites themselves have lapsed.

423 241 613 614 Garden land: There is considerable flexibility in the relationship between the planting of food gardens and the holding of rights to land. Of the 55 gardens (covering 27.1 acres) which were surveyed, only 20 (covering 9.8 acres) have been planted on land held by the lineage of which the planter is a primary member. Twenty-eight gardens have been planted on land in which the planter belongs to a different lineage within the same sub-clan or village. Three gardens have been planted on land held by another lineage of the same clan but in a neighbouring village, and the remaining four have been planted by a man who has no hereditary rights in Inonda lands but whose daughters have married into the village, one into the leading lineage. Details are shown in Table 3. Permission to plant is granted on a reciprocal basis and where the planter does not belong to the rightholding lineage, it is tacitly understood that when the main block of gardens moves to his lineage's land, he will permit other members of the sub-clan or village to plant gardens there if they wish.

Two of the five gardens which have been planted on land outside the Inonda limits are on the land of the Andiriha sub-clan in Hohota village. The planter of both was a born member of an Andiriha lineage which is represented in both Hohota and Inonda. He shifted to Inonda many years ago and joined the Inonda branch of his lineage. It appears that the gardens have been made in order to maintain or emphasize his claims to the land. His adopted son, who belongs to a different lineage, has also cleared a patch of second growth in order to make a food garden on this land. Two other gardens (one a feast garden) have been planted on Andiriha land at Hohota by the man who has

[TEXT CONTINUED ON PAGE 35]

Table 3

Rights to food garden land

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Nature of planter's right in his garden land	No. of gardens	Area of gardens (acres)
1. Planter is a primary member of the rightholding lineage	20	9.8
2. Member of a different lineage but within the same sub-clan	18	8.3
3. Member of a different lineage and sub-clan within the same village	10	3.7
4. Member of a different lineage but within the same clan (though in another village - Hohota)	3	1.6
5. Permissive rights only (belongs to a clan which is not represented here, but lives in Inonda village)	2	1.1
6. Permissive rights only (as for 5, but gardens located in another village - Hohota)	2	2.6
Total	55	27.1

423 only permissive rights at Inonda or any nearby place. He has
been living at Inonda for some years on a temporary basis and
241 is dependent for gardening land on his relatives by marriage at
613 Inonda. He has also been loaned two pieces of gardening land at
614 Hohota, where he used to conduct a church school, and is
obliged to accept whatever land is made available to him. One
of his gardens in Hohota is planted on land held by his mother's
sister's husband's brother's son, and the other on the land of a
senior deacon of the Hohota church.

Two other gardens with recognizable boundaries have been made amongst the main block of gardens. One was made in 1960 by an Inonda man who has since died, and the other by a man of the Jegotumo lineage (of the Andiriha clan) who was born in Inonda but now lives in Hohota village. The sub-lineage to which he belongs has rights to at least two areas of Inonda land. It was presumably to affirm his rights that he made a garden on one of these lands, for he does most of his gardening in Hohota, where his lineage has ample land. Inonda folk say that his rights in the Inonda land will 'live' while he or his son work the land and 'visit' the village (i.e. take part in appropriate village activities such as church celebrations, taro festivals, weddings and funerals). If he did not work the land, they say, then his sons (who are still small children) would not be entitled to make use of it.

423 Informants claimed that a man in need has the right
241 to make gardens on the land of the mother's brother though this
is exercised only if it is within walking distance of the planter's
604 village. The only instance noted was that of a man who began
preparing a new garden on his mother's brother's land at Urio
just after our survey was completed.

423 Hunting and foraging rights: Any primary member
644 of the Andiriha and Jego'undi sub-clans in Inonda can hunt or
forage on any portion of the Inonda land which is covered with
621 virgin bush, kunai grass, or second growth. Likewise any
224 villager may take such timber or firewood as he needs from the
[313] virgin bush, and although it is said that one may also take these

424 things from any area of second growth it appeared from our observations that people seldom took wood from second growth land
621 other than areas which they themselves had previously planted.
614 Permissive members of the sub-clans exercise the same hunt-
224 ing and foraging rights as primary members.
[313]

Contingent members of the Inonda sub-clans (or their husbands in the case of women), are entitled to hunt on Inonda lands, though they are expected to notify the villagers before doing so. Contingent members of the sub-clans do not in fact come to forage. During our stay one contingent member of the Andiriha sub-clan and the husband of another came to hunt on several occasions. Both live in villages within two hours walk of Inonda. It is said that those from further away rarely come, and then only to acquire meat for an important feast.

423 On rare occasions, when they have inadequate meat
614 for a forthcoming feast which involves the whole clan, clansmen
from other villages come to Inonda and make a formal request
628 for permission to hunt there. They remain for several days and
574 hunt with the help of the local people, smoke the meat and then
224 return home. The Inonda people are then invited to partake of the feast in the village which is holding the celebration, and will be given gifts of garden produce on their departure.

423 Only three Inonda men exercise hunting rights out-
side Inonda land. The first two are the members of the Jego'undi
614 sub-clan. They were given hunting rights to a piece of land
224 which abuts the Inonda land to the south-east by their mother's brother shortly before his death. He lived in the adjacent village of Urio and had no children of his own. The other Inonda man with hunting rights outside the lands of the sub-clans is the councillor. He is the eldest surviving child of the previous sub-clan leader, and it also may be significant that he has attained a higher standard of education then any other member of the sub-clan. He was given hunting rights to a portion of land which abuts the Inonda lands to the south-west, by his mother's father who was also the man who gave him his name. The donor was an elder of the Tandai'undi clan of Ajoro village and made the

423 614 224 transfer at a feast shortly after the grandson finished his schooling. Along with the rights he was given the obligation to look after the land and ensure that nobody else uses it. In fact, he informs us, the only person whom he permits to hunt there is his adoptive father.

423 224 All Inonda people, along with all members of the Andiriha and Jego'undi clans who live elsewhere, claim the right to hunt on the 'ancestral' land at Aramba. This right is in fact seldom exercised, though the Inonda people say that they have paid visits to Aramba on several occasions in recent years to collect fruits and nuts, and have done a little hunting and foraging during their stay.

During the dry season hunting drives are sometimes held on the Inonda grasslands which are burned off for the [628] purpose. As a considerable number of people are needed to undertake such a drive, neighbouring villages are invited to participate in the hunt.

423 226 621 Fishing rights: For the purpose of fishing rights, the Girua river is divided into sections, each of which is associated with a particular local group. Rights to the section running downstream from a point near the Inonda airstrip are held by the people of Doboduru village. From Inonda airstrip upstream to a point near the new Girua bridge, rights are held by the Inonda people. Upstream from the new Girua bridge as far as Hombere creek, rights are held by the Warau'undi clan and thereafter sections are held by the Ajoro, Sewa and Bofu people respectively. The boundary of each section of the river is also the boundary of the surrounding land.

423 226 614 The Inonda portion of the river is held jointly by the Andiriha and Jego'undi sub-clans and any primary member of either sub-clan may fish there. Men who are secondary or contingent members of the Inonda sub-clans, and the husbands of women who are contingent members, have a limited right to fish in the Girua river, for while they cannot fish there without

423 226 614 permission, custom does not permit of permission being withheld unless the circumstances are exceptional. On two occasions during our stay the river was fished by men married to Andiriha women, and once by a contingent member of the Andiriha sub-clan who lives at Hohota. No payment is made for this privilege, not is any part of the catch given to the host village.

423 226 628 On rare occasions Andiriha people from distant villages have been given the right to fish in the Girua river to obtain food to garnish a forthcoming feast. The procedure is similar to that outlined for hunting under the same circumstances. Adjacent to the Inonda land on the north side of the Girua river is a government resettlement scheme. The settlers, most of whom are strangers to the area, sometimes fish in the river after obtaining permission from the Inonda elders. No direct payment is made but there are indications of other forms of reciprocity between the settlers and the village.

226 423 614 613 [425] Rights to that part of the Sambogo river which flows through Inonda are not held jointly by the sub-clans. There are five divisions in the river, each of which is held by one or other of the lineages. One particular pool is held by an individual, the sole surviving child of the man who is said to have acquired rights to it by clearing the adjacent virgin bush and gardening there. Since the Paru lineage died out the rights to their part of the river have been taken over by the Joremba'embo. Men often fish alone, but frequently take other villagers (not [621] necessarily of the same lineage) to fish with them. When a fish drive is held during the dry season all the villagers fish together.

The rights of secondary and contingent members in the Sambogo river are held only in relation to that particular part of it which is associated with the lineage to which they trace their relationship. One permissive member of the Andiriha sub-clan is allowed to fish in either of the places where his daughters' husbands have rights. Small groups of women sometimes fish in places where their husbands' lineages hold rights.

Only three Inonda men exercise fishing rights out-
226 side Inonda. The first two are members of the Jego'undi sub-
423 clan who were given rights to fish in the Sambogo river from Ere
creek to Mosou village by their mother's brother along with the hunting rights already described. The part of the river concerned is adjacent to the part held by the Andiriha sub-clan. As Mosou village is situated close to the Jego'undi portion of the river, some Mosou men who have distant kinship connections with the Jego'undi are permitted to fish there. All parties confirm that no payment is made for this privilege but we have observed that the Mosou people make gifts of betel nut and sago to the Jego'undi. The Inonda councillor was given exclusive rights to fish part of the Sambogo river (adjacent to the Andiriha part but at the other end from that held by the Jego'undi) along with hunting rights to the surrounding lands.

241 Cash crops: Only small areas of land are being
used for cash cropping (see map page 109A). In 1955 three
households planted a total of 801 trees on 1.85 acres of land
situated near the Girua river on Hohota lands and these trees
241 are now in production. They are planted on land to which the
423 planters previously held only permissive rights of occupancy,
although since 1961 these rights have been strengthened by registration under the Higaturu Local Government Council land registration scheme (which is explained in Appendix A). The problems associated with this land are discussed on pages 72-75. In 1961 another man planted 0.41 acres of cocoa on Inonda land in which another lineage has prior rights, but this will not produce for some years yet. A fifth man has staked out 0.6 acres of land at Inonda which belongs to a lineage other than his own, but because of the resultant dispute he will probably not plant coffee on it as originally intended (for details see page 75).

245 The small amount of coffee produced is sold in the
parchment stage. If it is assumed that each tree will produce half a pound of parchment coffee annually then total production for the village will be approximately 400 lbs. The income from this, if parchment coffee is sold at 1/- per pound, would be only £20.0.0 per year for the whole village. Details of production during the past three years are shown in Table 4.

A [See Category 102, p. 109--Analyst]

423 428 425 In five blocks rights were obtained by a man by adoption from two previous rightholders neither of whom had any surviving male children, and each of whom adopted this man in turn during his childhood. The two men belonged to different lineages. Another six blocks belonged to the Paru lineage which died out due to an absence of male heirs. The rights in five of these lands fell to a female member of the lineage and from her to a relative in a neighbouring village (the precise relationship is not known). His descendants transferred the rights back to a relative of theirs in the Jego'undi sub-clan of Inonda. It appears that individual rights are not retained for long if the holder is permanently resident elsewhere. Rights to the sixth block of Paru lineage land passed through a Paru female to her son in the Joremba'embo lineage of his father. It will be noted that Inonda lands have changed from one lineage to another firstly by adoption of a member of another lineage and secondly by transmission to the son of a female of the donor lineage. Such instances only occurred when there were no resident males in the direct line.

When a male is born to a current rightholder the child immediately becomes a potential joint rightholder in his father's land. His rights crystallize when he plants his first garden, usually at the time of his marriage. People claim that the first-born child has no rights superior to those of any other, but in the case of joint rightholding at least, he is recognized as senior, and as the spokesman and trustee in negotiations involving other groups. There were insufficient instances of brothers holding gardening land jointly to ascertain the precise nature of the elder brother's rights of control.

The enforcement of rights

578 627 754 In pre-contact times rights could be enforced by recourse to negotiation or arbitration by elders within the village, by direct aggression or by recourse to sorcery. Today direct aggression is illegal, and though it still occasionally occurs between individuals or small groups, it is no longer a very important deterrent. Sorcery is still widespread and the fear of it appears to be an effective deterrent to encroachment on the rights of the strong, though not necessarily on those of persons whose status is low. In the event of encroachment by another

CHAPTER 3 - OTHER PROPERTY

Housing

342 All materials for building the Inonda village were
319 acquired from land and trees in which the people hold rights of
one form or another.(1) The framework is usually made of
423 wange saplings and the floor of black palm. Sago thatch is used for the roof and split sago midribs for the walls. Saplings for the framework may be obtained from any virgin bush or second growth though most people said they used saplings which they had cut during the course of clearing new gardens.

Sago for the roof and walls must be acquired from one's own trees unless they are inadequate, in which case it is necessary to negotiate with someone who has a surplus. Of the eight houses in the village, sago for three of them was obtained from trees belonging to the household head and for three others from trees belonging to the father of the household head. One, who has only permissive status in the village, obtained sago from his daughter's husband's father's trees. The last man has insufficient trees and obtained thatch from trees on his mother's clan's land in a neighbouring village.

Tools and equipment

412 Very few agricultural implements are used. Each
422 adult male has an axe for felling bush and every man and woman
has a bush knife which is used in weeding, clearing and harvesting. Planting is done with a digging stick. There are no other gardening implements in regular use.

412 The axes and knives were bought from local trade
435 stores and though actual prices paid are not known, current re-

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(1) With the exception of a few sheets of iron used for ridging and eaves which were collected from ex-army dumps.

231 pigs and fowls available for feasts, there is no opportunity for
the numbers of livestock to multiply, and demand always outruns
the supply. Nor can the demand be met from neighbouring
[435] villages for they are beset with the same problem. Some
European planters breed pigs for the local market and have no
difficulty in obtaining £10 to £15 for pigs of moderate size to be
killed for feasts. If the problem of the current customary
obligation to make one's livestock available for feasting could be
overcome, pig and poultry breeding for local consumption and
local marketing would appear to be a fruitful source of cash income as well as of protein good.

Economic trees

241 The most important trees in the Inonda subsistence
245 economy are sago, coconut, betel nut, hauga nut, breadfruit, and
pandanus. Sago is used for food as well as construction, while
[124] the others are used for food only. Information on economic
trees was gathered by interview only and, except in instances
where we were able to check during the course of other work,
423 they were not counted on the ground. Economic trees are
usually planted on land held by the lineage of the planter, but as
rights to them are sometimes transferred by gift and inheritance
between individuals of different lineages, sub-clans and clans,
many persons hold rights to trees on land held by descent groups
other than their own. Apart from a right of access, rights in
trees do not entitle the holder to any rights in the surrounding
land.

423 In addition to the rights of those born in Inonda, some
wives claim rights to use economic trees in their home villages.
241 They do not claim exclusive rights to specific trees,(1) but
245 rather the right to harvest some produce from trees held by
their fathers or brothers. This right is usually exercised only
in the event of a shortage of food from the husband's land, or if
the wife is on a visit home. During our stay we observed two
persons exercising such rights - one to make sago about three

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(1) With the exception of one woman who had been allocated specific coconut trees by her father.

423 miles away and another to collect betel nut about fifteen miles
241 away.(1)
245

The rights of females who marry outside the village vary according to distance, frequency of contact with the home village and adequacy of supplies of that tree in the locality where they reside. It is said that a widow can return to her village of origin and resume rights which had been exercised by her brothers since her absence. We found no instances of females who live in or originate from this village having exclusive rights to any tree, either in this village or any other, though instances do occur of trees being given by a woman's brother or father to her children.

Unlike in other parts of the Orokaiva country sago
222 does not grow wild in Inonda though some wild sago is collected by Inonda people from other lands in which they hold rights.
[262 Sago is eaten mainly in the latter part of the dry season when other foods are short, or at other times when large quantities of food are needed for funerary or other feasts. What people refer to as 'a tree' is frequently a clump of trees in various stages of growth, but all of which have originated from a single plant.

423 A total of 21 sago trees was accounted for on
241 Inonda lands, but the bulk of sago supplies is obtained from
245 outside the area. Four Inonda people claimed five trees at Sambogo, where their forefathers had lived before shifting to Inonda. All Inonda people claim rights to wild sago growing at Aramba, the "original" home of the Andiriha and Jego'undi clans, and some of them have made sago there in recent years. The Inonda people claim the right, along with other branches of their clans, to use whatever trees they need. People from this village also make sago from wild trees bordering the Embi

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(1) Sago is difficult to prepare and heavy to carry and is usually obtained from the closest possible source, even if this means making arrangements with persons to whom one is not closely related. Betel nut, on the other hand, is light, and it is easier to go a longer distance and obtain it from some close relative than it is to get it closer if that would necessitate contracting obligations with more distant kin.

423 Lakes; those who are related to the Sauhaha people use trees on
the Sauhaha land, and those who are related to the Tandai'undi
241 use trees on their land. Three Inonda men claim rights in six
245 sago trees in their mothers' villages.

Although informants usually refer to trees as being individually owned, in fact they are more often owned by siblings (or half-siblings of the same father) and merely referred to in the name of the eldest male sibling. Thus all but three sago trees in Inonda were owned by more than one person. Moreover, it is apparent that the Inonda people recognize implied qualifications to these rights. The resident adult children of the 'owners' are regarded as having the same rights of use (but not of control or disposal) as their fathers. Qualifications are particularly noticeable in the case of sago and a man who is not using a sago tree can scarcely refuse it to a resident cousin or even an unrelated neighbour who requires it. As a sago tree takes about fourteen years to mature, it is not unusual for a man not to have one ready when he needs it. Also, as a large quantity of food is obtained from each tree, it is common for villagers who are not closely related to exploit jointly a tree which belongs to one of them. During our stay two sago trees were harvested. One group of four men (who belonged to three separate lineages of the same clan, but one of whom lived in Hohota) harvested a tree belonging to one of them. Another man harvested a tree which belonged to his wife's family and was growing in the neighbouring village of Urio.

The village people claimed 104 coconut trees in Inonda and said that (excluding children absent at school) only two non-residents owned coconut trees there. Both were contingent members of the Inonda sub-clans. One Inonda man has 4 trees on his father's lineage land in Hohota, and two others claimed a total of 15 trees in the villages of their respective mothers. Two others claimed that they had rights to trees in their mothers' villages though they had not exercised the rights and were not sure how many trees were involved.

Betel nut does not grow well in Inonda and there are no bearing trees in the area. One man still uses three trees which he planted on the land of a neighbouring tribe in the

429 mountain area while taking refuge there during the war. Two
241 others have been allocated specific trees in their mothers'
245 villages. One obtains supplies from his wife's village, but most
Inonda people must obtain their betel nut by barter or purchase
from villages further inland.

Only two households own hauga nut trees in Inonda (a total of 8 trees). One man has two trees on his lineage land in Hohota village, one has four trees in his mother's village and there are some hauga trees in Aramba which Inonda people harvest on visits there.

Breadfruit are relatively plentiful, 52 trees being noted, not including 2 at Ajoro which are owned by one Inonda man, and 2 at Hohota by another. Some 37 pandanus trees were recorded in addition to one each at Hohota and Aramba. We found no instances of pandanus trees being owned by non-residents other than men who were contingent members of the Inonda sub-clans. On the other hand several breadfruit were owned by the children of women who originated from Inonda but had married elsewhere.

Non-monetary valuables

436 The Inonda people recognize two categories of non-monetary valuables; firstly hambo which are ornaments made of sea shells, pigs' tusks, dogs' teeth etc., and secondly di which are ceremonial head-dresses made of feathers. Hambo and di are exchanged at certain ceremonies and sometimes given in recognition of a service rendered or as a token of apology. They can also be acquired by barter, and there is still some trade in shell ornaments from the coast and in feathers for head-dresses from the mountains. In recent years, however, valuables have frequently been acquired by cash purchase.

It is difficult to value hambo and di in terms of cash and whatever formula one adopts has its inadequacies. It is nevertheless important that some attempt be made to equate them, for valuables and cash are in some circumstances acceptable substitutes for one another (especially in meeting traditional social obligations) and the acquisition of the one is to some extent in competition with the acquisition of the other.

CHAPTER 5 - LIMITATIONS ON PRODUCTIVITY

Features of the tenure situation which inhibit productivity

614 423 578 The overlapping claims of various clans and sub-clans cause uncertainty as to the rights of each, in particular with respect to lands planted with cash crops. To illustrate this point we will quote several examples. During our stay in the village one Inonda man had a temporary job as foreman in a nearby construction camp. Due to completion of a particular phase of the work some workers were dismissed by the European overseer and these included some Tandai'undi men. These men then came to Inonda village and reminded the foreman that Inonda was "their" land and that if he wanted to remain on it, he had better get them their jobs back. This foreman has no cash crops and claims the reason for this to be his fear of trouble with the Tandai'undi. With one exception, nobody has cash crops on Inonda land. The Inonda people dare not take the case to the Lands Commission in case judgement is given in favour of Tandai'undi, in which case the Inonda people could lose all their rights.(1)

614 423 425 578 Those Inonda people who have cash crops in production have planted them on the far side of the Girua river. The land where they are planted was occupied until about forty years ago by the Endehi'undi clan. The Endehi'undi were defeated in war shortly after European contact and the few survivors scattered to various villages where they took up permanent residence. This land was apparently abandoned and not used again until 1952 after the Mt. Lamington eruption when some people of the neighbouring Jau'undi clan of Hohota village cleared the bush and planted food gardens there. After the Mt. Lamington danger passed most of them returned to their home

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(1) The Native Lands Commission in the Territory appears to have awarded title on a basis of historical precedent much more frequently than on current needs or recent arrangements. It would not be surprising if, in the event of a case before the Commission, rights were awarded to the Tandai'undi (in pre-contact times, of course, occupation of the land and the relative strength of the two parties would have been the main criteria).

614 423 425 578 village, but one who was married to an Andiriha woman remained and planted coffee. At his invitation, several Andiriha men from Inonda village planted coffee in the same area. They claimed that as the Endehi'undi had been defeated in war two generations previously and had not occupied this land since, and as the scattered remnants of the Endehi'undi were long since absorbed into other villages, their rights had lapsed. They maintained that the person who cleared the virgin bush after the Mt. Lamington eruption had valid rights to plant cash crops there, and was entitled to invite his relations to plant there with him. As an additional precaution, however, the first man to plant coffee there obtained the approval of the only member of the Endehi'undi living in Hohota. When another Endehi'undi man from Ururu village was widowed about two years ago, he moved into the household of an Andiriha man who has coffee on this land.

Of course there is no traditional precedent to apply to rights to cash crops, but after the coffee had been planted for nearly a year, some of the Endehi'undi went to the Administration and claimed that the land was theirs, and that as the coffee had been planted on their land without their permission, it was also theirs. An officer of the Department of Native Affairs brought the parties together and it was ultimately agreed that the coffee planters could continue to occupy the land provided that they paid the Endehi'undi for the land. The Endehi'undi were given about £16 in cash, pigs, traditional valuables and taro. The precise rights transferred by this exchange are not clear, and the participants have differing views as to their respective rights, for the Andiriha consider that they have acquired absolute proprietary rights, whereas the Endehi'undi maintain that they have not disposed of proprietary rights. It is perhaps significant that the Endehi'undi man from Ururu village, who was widowed about two years ago, was taken in to the house of one of the Andiriha men who has coffee on this land.

[657] [692] The Department of Native Affairs has no legal power to determine land disputes and the arrangement is accordingly

614 not legally binding.(1) In fact, however, the parties to this dis-
423 pute assume that the officer concerned does have the necessary
power to enforce the agreement, and thus it is effective for the
425 present, particularly as it has been reinforced by registration of
657 the land with the council. The Endehi'undi nevertheless intend
692 to re-assert their rights to this land at a later date. When they
578 find that the existing arrangement is not binding, they may either
simply revoke it or apply to the Lands Commission for rein-
statement of their earlier rights.

614 Our third example concerns the Jego'undi sub-clan
of Inonda. Neither of the two adult members of this sub-clan
423 has planted cash crops. One of them had prepared ground for
425 planting cocoa on the site of his former food garden, but his
578 right to do so was questioned by the Andiriha and he abandoned
the attempt. As already explained, the Jego'undi are in a subordinate position to the Andiriha, and though their ancestor did contribute to the transfer of gifts at the time the Inonda people acquired their lands, their numbers are small and their status is low. Their continued residence in the village is thus dependent on their passive compliance with the wishes of the Andiriha leaders. They spoke of leaving this village for either of two other villages to which they are linked by ties of kinship and marriage, but they are aware that wherever they move their

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(1) Officers of the Department of Native Affairs exercised widespread jurisdiction in land matters (and settled disputes in Inonda) until their power to do so was curtailed as a result of two important judgements. The first was a judgement made on 19th July, 1957, by the Court of Appeal in the case of Busin v. Havini in which it was ruled that although Regulation 59 of the Native Administration Regulations of New Guinea gave magistrates (usually in practice Native Affairs patrol staff exercising their magisterial functions) the power to decide the ownership of land, this power had been repealed by implication by the Native Land Registration Ordinance 1952, which provided that the ownership of customary land in both Papua and New Guinea could only be determined by the Native Lands Commission. This judgement made the situation in New Guinea identical with what it had always been in Papua i.e. that district courts could settle questions of land use but not questions of land ownership. On 8th April, 1960, however, in its judgement in the case Soape v. Wesiki, the Supreme Court held that district courts could not make decisions about land use where such decisions were based on implied assumptions about the ownership of the land concerned. As most decisions about land use are based on assumptions about its ownership, the district courts have generally declined to handle any cases relating to land matters of any sort.

614 position will be insecure.

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The man who resides in the village by virtue of the
578 fact that two of his daughters are married to Andiriha men has been invited to plant coffee in Inonda but he considers the risk of future dispute too great to do so. He is therefore planning to return to his village of origin to plant cash crops and has already begun clearing there.

The one man who has planted cocoa on Inonda land did so, not on his own lineage land, but on that of another lineage which has no adult members at present. But the mother of the children whose lineage holds primary rights to the land has objected strongly and has succeeded in stopping him from expanding his plantings. One other Andiriha man staked out land and planted shade for cocoa, again on the same land of the other lineage mentioned, but has been prevented from planting.(1)

423 Partly as a result of the uncertainty of their tenure
621 the villagers are again considering shifting the village site.(2)
Several possibilities are being considered. Some wish to move
166 to land held by an Andiriha sub-clan which lives at Hohota and
614 which has close links with the Inonda sub-clan. These point
578 out that they have no certainty of tenure for their cash crops
on the existing land, whereas at Hohota there is land which is

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[597] (1) This dispute resulted from the fact that when the last adult member of the lineage died, his wife remarried and her new husband "adopted" her children. Those who moved onto the land reasoned that as the children had been adopted, the local branch of the lineage had died out and the land was available for use by any member of the sub-clan. The mother, on the other hand, claimed that the children would not inherit land from their adoptive father but from their born father. She won her point by threatening to complain to Native Affairs officers who, the villagers said, would undoubtedly have supported her.

[754]
[161] (2) This is not the only reason for moving, and the prevalence of sorcery in the present location is felt to be responsible for the supposed excessive death-rate. (There has in fact been a decline in population from 60 in 1949, to 49 in 1957, 45 in 1960 and 45 today). The Allied Geographical Section (1942, Appendix G) gave the population as approximately 120 in 1942, but the accuracy of this figure is in doubt.

423 the undisputed property of the Andiriha - albeit a different sub-
621 clan. The occupying sub-clan is said to be agreeable to the
166 shift, partly because one of the Inonda families originates from
614 a lineage of the sub-clan at Hohota. Another alternative is to
578 move to Ajoro, the "home" village of the Tandai'undi clan. The
Ajoro people are said to have invited them to come, and to have offered them land on which to plant their food crops. Some felt that residence with the Tandai'undi would reinforce their existing hold on the land they at present use, but others fear that if trouble arose between them and the Tandai'undi they may have to leave.(1)

A further possibility which has been considered is for the village to split - the Jego'undi going either to Mosou to occupy the land given them by their mother's brother or to Urio to join their mother's lineage, the Andiriha who originate from Hohota lineage removing there, and the balance of the Andiriha, who have close kinship links with the Ajoro people, moving there to live. A final possibility is to remove the whole village back near their food gardens at Inonda I. The actual outcome will no doubt depend on the internal relations between villagers and the external relations between this village and the others in the vicinity.

614 The past history of the Inonda lands and the current
423 problems encountered with cash crop planting there indicate that
578 there are serious tenure problems at the sub-clan level. It
appears that the definition of sub-clan or village boundaries and
the rationalization of land rights in such a way that only one
clan, sub-clan or village has rights in any one area would be
[657] conducive to higher productivity and less dispute. The Native
[692] Lands Commission has the power to define boundaries and
rightholding groups on the application of any of the parties
claiming rights in an area. But in fact there is one Native Lands Commissioner for the whole of the Northern District (with a population of 51,000) and he is required to do his own surveying, collection of genealogies and clerical work without

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(1) The people are clearly disturbed by the knowledge that the government survey recorded the Inonda land as "belonging" to the Tandai'undi.

614 assistance. The system of investigation followed by the Com-
423 mission is very detailed, and accordingly in the period of three
years since the Commissioner was posted to the district only
578 about five disputes have been settled. Already 34 other cases
657 are awaiting deliberation and many other disputants would take
692 their cases to the Commission if an early decision was possible.
Owing to the lack of staff it will probably be many years before they can be heard. The scale of the problem appears to be so vast that it may well be beyond the capacity of the Commission to cope with for many years to come.(1) To overcome the problem in a short time would require either tremendous expansion of the Lands Commission or delegation of authority to deal with such matters to local (and possibly indigenous) tribunals.(2)

644 In the meantime the area is left without adequate
machinery for the definition of rights and the settlement of dis-
423 putes. Indigenous leaders, whether councillors, clan heads or
578 other elders have no legal right to determine disputes, and
692 although they are frequently able to exert social pressure to
[627] have their decisions enforced, they cannot apply any legal
sanctions. It seems that such decisions are frequently effective within the lineage or sub-clan because the leaders are in intimate contact with the disputants and can apply effective social sanctions. This is much less so with respect to disputes be-

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(1)- Since this article was written, the Native Lands Commission has been joined with the existing Land Titles Commission to form a new Land Titles Commission. The enabling legislation (Land Titles Commission Ordinance 1962) was passed by the legislature in 1962 but was not assented to by the Governor General until April 1963. The new Commission has only seven commissioners to serve the whole of Papua and New Guinea.

(2) This is a widespread pattern elsewhere in the Pacific. For example, in the Gilbert and Ellice Islands, the Lands Commission is composed entirely of indigenous members, though the Chief Lands Commissioner (who is an expatriate official) sits with them on appeal cases. The Lands Commission in Fiji is comprised of a commissioner (who is usually a Fijian) and a number of Fijian assessors who are elected for the particular area by the Provincial Council. The Land and Titles Court of Western Samoa is comprised of a President (who is also Chief Judge of the High Court), not less than two Samoan judges and not less than one assessor. In practice, however, it more frequently sits with three Samoan judges and two or more assessors who are usually Samoans.

614 tween sub-clans or villages.(1)

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Officers of the Department of Native Affairs are still
692 in some instances able to effect reconciliations or to settle dis-
[657] putes despite their lack of legal powers. This is not only be-
cause disputants are sometimes prepared to accept the judgement
of a disinterested third party, but also because almost all
Orokaiva people we have met are of the opinion that patrol staff
614 do have the power to enforce their "recommendations". The
423 fear of sorcery is still recognized as a sanction against trans-
gression of property rights and informants quoted instances of
578 sorcery having been used to punish transgressions of fishing
626 rights. It is a commonplace that where adequate alternative
754 facilities for settling disputes are not available, sorcery tends
to increase. Though it is certainly extant in Inonda we have no
evidence to indicate whether it is increasing or not.

The definition of boundaries and owning sub-clans
614 would increase social stability and security of tenure, but in the
423 course of time, due to population increase in some clans and
decrease in others, it would become increasingly unrelated to
clan needs. It is therefore necessary that any action to define
boundaries and ownership should be associated with facilities for
the transfer of rights between clans, or between individual mem-
bers of different clans.

721 In the pre-contact era warfare was probably the most
important means by which major areas of land were transferred
425 between descent groups, and when warfare is abolished it is
essential that alternative facilities for land transfer be provided.
In many colonial territories where warfare previously tended to
bring land areas into line with population numbers, colonial
governments have abolished warfare but have not provided
adequate alternative means of transfer, and this invariably leads

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(1) Disputes between sub-clans or villages are sometimes settled by the Executive of the Higaturu Council. They have no legal power to enforce decisions, but they are often able to persuade parties to accept their advice.

721 to maldistribution of land.(1)

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423 The individual lacks security of tenure for his cash crops, but not for his food crops. In the case of the coffee blocks on Endehi'undi land a reasonable degree of security has been achieved by registration under the Higaturu Council scheme.(2) Nobody dares apply for registration for cash crop blocks on Inonda land for fear of objections by the Tandai'undi but even if these were overcome, there would probably still be inadequate security of tenure for cash crops even within the subclans. The size and value of blocks hardly merit the cost in time and money of precision surveying and government registration, and the present Higaturu Council registration scheme would appear to us to be well suited to the present conditions, if it was supported by the Administration and by appropriate legislation.(3)

Economic trees and other personal wealth appear to have always been held either by individuals or by small groups of siblings (though subject to specific obligations to kin). The possession of income-producing trees by individuals is thus in harmony with traditional concepts of rights to trees. In the traditional culture, however, rights to trees did not necessarily coincide with rights to the land on which they were planted, beyond the right of access and the use of such land as was

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(1) Formal provisions for transfer under certain circumstances are contained in the Land (Tenure Conversion) Bill 1963. This bill has not yet been passed by the Legislative Assembly. The transfer system provided for, however, does not apply to any land until it has been dealt with by the Land Titles Commission. Unless the Commission is provided with enormous resources or delegates its routine functions to local bodies it will be unable to provide such facilities for all but a small fraction of the Territory for many years to come.

(2) The Higaturu Council scheme is explained in Appendix A[A]

(3) Official policy as expounded by the Minister for Territories (Hasluck 1960:1019-21), states that the only acceptable form of title is that issued by central government (and thus the Higaturu Council registration scheme is not acceptable). Administrative practice has not been consistent, and at some times the scheme has been given official support, while at others instructions have been issued for its discontinuance or for discouragement of expansion. Present practice is to give the scheme cautious support, but there is considerable doubt as to whether the council by-law which established the scheme is legally valid, or whether councils have the power to make by-laws on such matters. To date, the question has not been tested at law.

A [See Category 657, pp. 89-96--Analyst]

429 necessary for the normal growth of the tree or trees concerned.

[245] In contrast to the random pattern of planting of traditional tree crops, coffee and cocoa must be planted contiguously and in relatively large numbers. It is not normally feasible for the land to be used for any other purpose at the same time, and it is therefore desirable that the planter have effective control of the land. Clear identification of rights is particularly necessary because of the value of the crop. It may also be desirable in giving the individual a degree of freedom from his descent group, for as more facilities are provided by larger institutions (local and central government agencies, missions etc.) the need for co-ordinated action by the descent group diminishes and it may even function more to limit the aspirations of members than to supply their needs.

There would not seem to be any advantage in defining or registering lineage boundaries, or the food gardening [241] areas of individuals. People frequently plant food crops on the [613] land of other lineages and this does not seem to cause any acute problems. It is a matter of convenience, done at the invitation of the rightholding lineage, and it results in a reduction of bush 425 clearing and pig-fencing. Furthermore, there are accepted processes of transfer of proprietary rights from one lineage to another and we recorded several such instances. The transfer is seldom completed in a single transaction, but rather takes place over time, and the nature of the rights transferred is modified by occupation and other circumstances. Even if short-term cash crops (such as peanuts or rice) were introduced, it is unlikely that major tenure problems would result unless cropping were undertaken on a large scale.

Aspects of work organization which inhibit productivity

461 There is at present a considerable surplus of working time available over and above that required for subsistence and cash cropping. Table 11 (page 63) shows that the average time spent per week on subsistence activities and cash cropping was 14.7 hours for men and 16.0 hours for women. This suggests that E.K. Fisk's comments to the effect that the unexploited labour supply of South-East Asia is one of its major sources of productivity may equally apply here.(1)

(1) Fisk, 1961:778.

APPENDIX A

The Higaturu Local Government Council Land Registration and Coffee Processing Schemes

657 The Higaturu Local Government Council was formed in April, 1956. It serves 12,000 people who belong to the southern Orokaiva culture group of the Northern District of Papua, and has 54 councillors to represent its 86 villages (of which Inonda is one).

Land registration

657 423 [241] In the first year of the council's operation the Native Affairs officer who was responsible for supervising council affairs initiated a system of registering with the council all lands which were being used for cash crops. In practice, persons wishing to plant cash crops under the scheme applied to the supervising officer, who thereafter made a chain and compass survey of the land concerned, in the presence of the elders of the landholding clan. The councillor for the area also attended. A written declaration was made and witnessed by the clan elders, the local councillor, the applicant and the Native Affairs officer. The declaration allotted the land to the applicant and stated that he could thereafter transfer it or nominate heirs to it, without further reference to the clan or other group. The land described in the declaration was then entered in a register by the council clerk.

During 1957 after about 150 blocks had been registered, the acting District Commissioner ordered that the scheme be stopped on the ground, it is said, that it did not conform to traditional practice. No statement of policy was issued, but no further registrations were made for nearly three [241] years. The people were uncertain of the status of the registrations which had already been made but coffee planting continued throughout. In fact, the man who was then District Agricultural Officer considers that there was more planting during 1957-60 than either before or since.

It is understood that the main issues at stake were (a) whether the scheme constituted a modification to custom or

657 423 whether it merely provided facilities for recording customary land allocation; and (b) whether or not a council had the legal right to undertake the scheme at all. The answer to the latter question is really dependent on the answer to the former. This in turn depends on the legal definition of what constitutes custom, for if the scheme is considered to be in accordance with custom then it is legally valid, whereas if it is not in accordance with custom it is invalid. Various opinions have been expressed, but in the absence of clarifying legislation or a test case the matter remained one for administrative discretion.(1)

During 1958 the council passed a rule (Rule No. 4 of 1958) which required that before any man could plant cash crops, he had to obtain the approval of the leaders of the relevant clan or clans. This rule was disallowed by the Administration. In 1959, a new rule was adopted (Rule No. 2 of 1959) which stated in the preamble that "...tree crops should only be planted after notice has been given to the District Officer or District Agricultural Officer...so that help can be given efficiently in such things as transport and marketing and in control of pests and diseases. It is also necessary that future quarrels over land be avoided and that each man should feel secure in the knowledge that the benefits of the work he puts into his crop will come to him." The rule provided that no person could plant coffee or cocoa except on land which had been allotted to him by custom "to be used by him alone." Planting was not to commence until a chain and compass traverse had been made by an officer of the Department of Native Affairs. The rule was approved and implemented, though due to staff shortages it has not been possible to meet the demand for surveys, and planting generally precedes survey in fact.

657 423 425 While the rule itself made no provision for it, the draft form of agreement stated that the holder of land registered under the rule could transfer his rights to any indigenous person at any time. The Administration advised the councillors that this provision for transfer was not acceptable and a new form of

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(1) The Lands Commission Ordinance 1962, which was assented to in April 1963 after this paper was written, makes it clear that councils will no longer have the right to engage in such schemes. It is nevertheless possible for the Commission to investigate and ratify the registrations made by the council.

657 agreement was drafted and adopted. It reads as follows:

> 423 "Agreement to the right of land use.... It has been
> 425 agreed by the people of [name] clan (or village) and all other interested parties that [applicant's name] has had allocated to him by native custom for his use alone the land marked on the attached plan, and that no other person has a claim to the land. It is also agreed that any coffee trees planted by [the applicant] on the land are his sole property and no other person has claim over them."

The form is dated, signed by the allottee and by "the clan leaders" (in practice it is usual for all resident adult males in the "owning" clan or sub-clan to sign), and by the local councillor. It is witnessed by an officer of the Department of Native Affairs. A map of the land is attached to the form. Forms and maps are prepared in triplicate and one set was to be held by the applicant, one by the council, and one by the District Office in Popondetta. In practice, the council copy is also held by District Office.

657 Registration under this new rule commenced in
423 1960, and surveying and registration of plots have continued to the present time. At 1st January, 1963, 588 plots covering 1,120 acres had been registered. A further 1,029 applications for registration had been made but not yet dealt with. Although it was originally intended that no plot would be registered if it was less than two and a half acres in area, many smaller plots have in fact been dealt with and the registered plots at Inonda village measure 1.4, 2.6 and 1.6 acres respectively (though these areas have not yet been fully planted). Some areas of under one acre have been registered. Wherever possible, villagers are encouraged to allocate blocks contiguously, not only to facilitate surveying and identification of land, but also to reduce the extent of border clearing necessary, and to facilitate pest control and extension services.

(242) Provisions for ensuring higher standards of husbandry and output are contained in Rule No. 3 of 1959 which requires that persons with cash crops must:

657 428 242 "(a) ... keep the land clear of all rubbish

(b) ... cut down and burn out all diseased plants and trees....

(c) ... obey the orders of any Agricultural officer......"

A full-time inspector is employed by the council under the ordinance and a number of persons has been prosecuted for failure to keep their coffee and cocoa gardens cleared.

657 428 The question of inheritance of rights to land registered under the scheme has been raised by the council on a number of occasions, particularly during 1962 when it formed the main topic for debate in a number of meetings (most of which were attended by Unit staff). Most councillors favoured either (a) the nomination by the registered "owner" of a single male heir (usually the eldest son), or (b) the inheritance of the coffee block by all sons either jointly or by subdivision to individuals. In the absence of sons, rights were to devolve on brothers, on (614) sisters' sons or on daughters' sons. On the other hand, Native Affairs staff who attended the meetings advocated that as the clan as a whole had made the original allocation, the clan as a whole would need to select the heir. There appeared to be inadequate realization of the different nature of the rights held at the levels of the clan and sub-clan, the lineage and the individual. The fact that all members of the sub-clan were required to sign the agreement was merely a written affirmation of a customary allocation made at some previous time. Under Orokaiva custom, once land rights are allocated they are transmitted thereafter in the male line (subject to occupation, the existence of sons and so on). The councillors were merely asking that the rule be based on the existing custom; a custom which seemed to be appropriate to the circumstances. However, the difference of opinion was not really a matter of great consequence as councillors were informed that advice had been received from headquarters in Port Moresby that the council would not be permitted to make any rule on the question.

657 428 The aim of the registration scheme is to promote the planting of cash crops on individual plots with some security of

tenure. Registration is of doubtful legal validity, but to the extent that the Orokaiva people accept it as binding (and they appear to do so unreservedly at present) it functions in practice. Although no public statement has been made on future policy to be followed with regard to the scheme, the Land (Tenure Conversion) Bill 1963, would, if it were made law, enable the Lands Commission to issue freehold titles to replace the existing documents issued by the council.

Subsidiary developments

An interesting development took place in February 1962 when the people of Hohorita (which is within the council area) devised a scheme of consolidating their fragmented holdings on an area of land which they wished to set aside for cash cropping, and registering the lands allotted to each individual with the Higaturu Council. Their plan grew out of their experience of the council registration system (the most prominent leader of Hohorita, Councillor Brian, is president of the Higaturu Council) and of a visit of Hohorita leaders to the Yega project at Beporo. The Yega project involved the voluntary division of certain clan lands among individual clan members for cash cropping.(1)

The Hohorita plan was presented to officials of the departments of Native Affairs and Agriculture in Popondetta. They are said to have been sympathetic and to have appreciated the advantages of such a system whereby consolidation would be effected by the people themselves and registered (in the early stages at least) with their own council. Not only time and expense would be saved by the people undertaking the operation themselves, but an opportunity was thereby provided to rationalize the tenure system with the full co-operation of the people concerned. The Hohorita people have since been advised on instructions from headquarters that they are not to proceed with their proposal though consolidation may be arranged by the Lands Commission at a later date on their behalf. Popular

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(1) The Yega project is described in detail in a paper by R.B. Dakeyne which will be published in a subsequent issue of this Bulletin. The visit of the Hohorita people to Yega was sponsored by officers of the Department of Agriculture.

657 423 support is an essential prerequisite to land reform in a democratic state, and many examples exist in the colonial world wherein provisions for reform have been resisted or boycotted because of opposition to the institution prosecuting the reform rather than to the reform itself.(1)

Coffee processing and marketing

657 274 From its inception the council expressed the view that processing and marketing should be handled by the Orokaiva themselves (either through the council or some other authority set up for the purpose). Administration officers were generally sympathetic to this view though some doubted the capacity of the council to operate such an enterprise efficiently. It was agreed that the factory and equipment should be owned by the Orokaiva, but the question of management was left in abeyance.

[245] During the 1920's "communal" village plantations were established throughout the Orokaiva area under the Native Plantations Ordinance 1918.(2) Part of the proceeds of produce sales was distributed to villagers and part was deposited in a fund to be used for specific purposes including education. The project was resumed for a short time after the war and a credit balance remained in the Sangara Native Coffee Trust Fund. This money was used as part payment for the purchase of hulling, winnowing and polishing machines for the factory. The balance was met by a loan from the Native Loans Board (which is an
[348] agency of the central government). A factory building was erected for the council by an indigenous contractor at a cost of £500. The building was completed and the machinery installed by January 1959. Until this time the processing and marketing of coffee had been undertaken by a private firm.

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(1) Local reaction will be determined largely by the relations between the people and the authority implementing the reform. Owing to the precarious nature of relations between people and government in this Territory considerable emphasis will need to be given to public participation if the reforms proposed in the Lands Commission Bill 1962 and the Land (Tenure Conversion) Bill 1963 are to be successfully implemented.

(2) This project will be described in detail in a forthcoming issue of this Bulletin.

14: Crocombe & Hogbin E-5 (no date) 1963 OJ23 Orokaiva OJ23
Inonda

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133
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491
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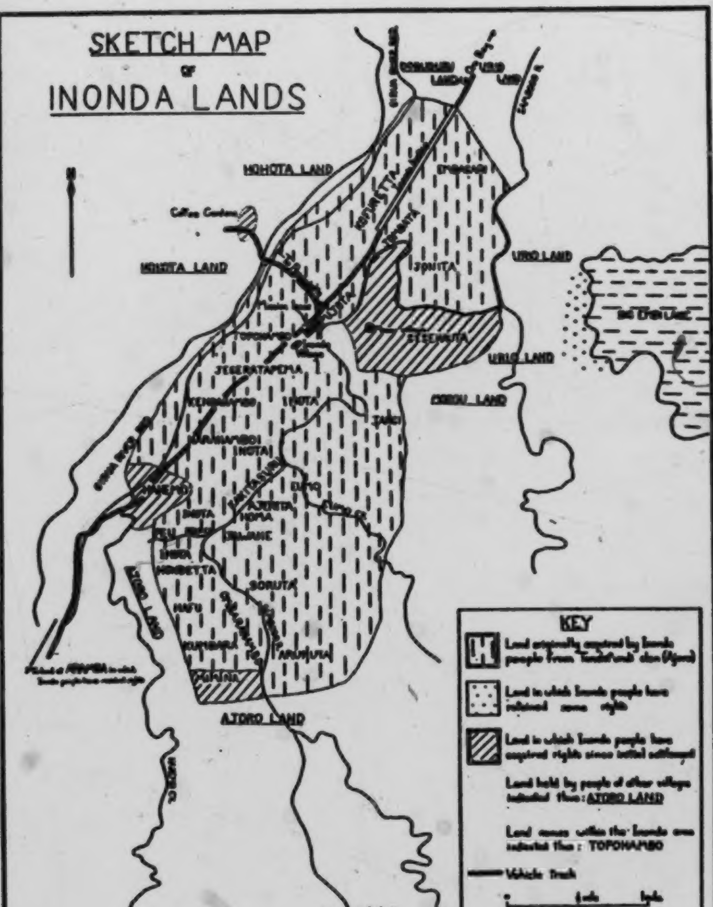
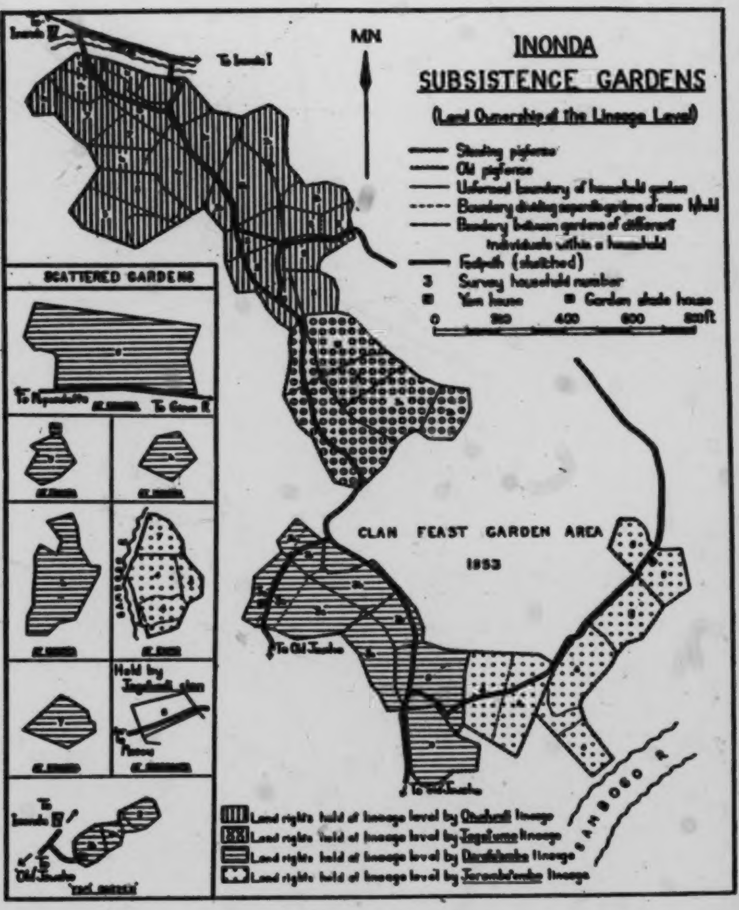

SKETCH MAP
OF
INONDA LANDS
N
HOHOTA LAND
Coffee Garden
KOHOTA LAND
URIO LAND
URIO LAND
JONITA
STEEHUTA
TOPOHAMBO
JEGERATAPEMA
KENDAMBO
IONITA
INOTA
TAPO
ORIO
AJONITA
HOMA
SORUTA
ARUHUTA
HONBETTA
HAFU
KUMBARA
ATORO LAND
ATORO LAND
SAVIODO
KEY
Land in which Inonda people have retained some rights
Land in which Inonda people have acquired rights since initial settlement
Land held by people of other villages indicated thus: ATORO LAND
Land names within the Inonda area indicated thus: TOPOHAMBO
Vehicle track
Scale

102
241
423
613


INONDA
SUBSISTENCE GARDENS
(Land Ownership at the Lineage Level)
Standing pigfence
Old pigfence
Unfenced boundary of household garden
Boundary dividing separate gardens of one h/hold
Boundary between gardens of different individuals within a household
Footpath (sketched)
3 Survey household number
Yam house
Garden shade house
0
200
400
600
800ft
MN
To Inonda IV
To Inonda I
SCATTERED GARDENS
To Ngunduho
To Girua R.
Held by Jegahumba clan
To Popondetta
CLAN FEAST GARDEN AREA
1953
To Old Jumbo
To Old Jumbo
To Inonda IV
To Old Jumbo
SAMBOGO R.
Land rights held at lineage level by Ohohuli lineage
Land rights held at lineage level by Jegaluma lineage
Land rights held at lineage level by Dorobihamba lineage
Land rights held at lineage level by Jorombo'embo lineage

472 marketing or the more intricate techniques of production. It does
554 suggest, however, that they have a sufficiently clear conception
of the way to achieve the goal (and the way is more important than
153 the goal itself) to enable them to organise and to act. It is
apparent that the entrepreneurs studied were highly motivated.[1]

Land and food gardens

241 Most Orokaiva men established their cash crops on customary
423 land to which they have acquired rights by inheritance from their
[428] fathers. None of the entrepreneurs did so, though all claim that
they could have done had they wished but deliberately chose not to.
[472] Each stated that the reason was to avoid claims by kin to their
land, produce or income.

241 A had cleared bush land and planted coffee at Garara where his
423 close kin had been permitted to resettle in the late 1920s. Though
the host clan did not mind the newcomers planting food crops they
472 objected to cash crops and forced him to abandon it. About 1930
the newcomers purchased about 2,000 acres of virgin bush land at
Kapurahambo from the clans of Soputa. The transfer was accompanied
by a series of feasts and dances and the distribution of traditional
valuables. The land was divided among the buying group, A and his
two brothers being allocated an area of eighty-one acres on which
they have since planted cocoa and coffee. A has applied for re-
[656] gistration of his land under the Land (Tenure Conversion) Ordinance
1963.

B claims he had extensive customary land available to him and this is confirmed by other villagers. But for his cash crops (coffee and cocoa) he chose to clear an area of unoccupied bush land which had formerly been owned by a small group which had been decimated and the survivors scattered decades before. B thought he would acquire exclusive rights to the area he cleared (Crocombe
and Hogbin 1963b:72-3). He subsequently improved the security of
[656] his title by registering this land under the Higaturu Council land
registration scheme, a transitional scheme, now superseded. He
has since applied for registration under the 1963 legislation.

C has rights to hundreds of acres of customary lands. For his
[432] cash-cropping, however, he chose to use two adjacent blocks of a
total of 106 acres which had been purchased by the government for
European settlement in the 1920s for 54 pounds of tobacco, one
tomahawk and one knife. The European lessor planted coconuts but
abandoned the property before the second world war. Though legally

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[1] A better understanding of this aspect will be achieved by research to be undertaken in 1967 by Ruth Finney of the University of California.

241 it reverted to the Crown, C, as grandson of the main original
423 vendor, regarded himself as having a right in the abandoned pro-
472 perty. After some years of negotiating he now has a ninety-nine
year lease at an annual rental of $7.95. Here he has planted
[427] cocoa and coconut trees.

At any time during his twenty years' employment D could have
returned to his home area and planted cash crops on the ample
family lands there. It was only when the opportunity arose of a
[654] resettlement block with a development loan of $1,500 that he
[426] decided to undertake cash-cropping; he has now planted over
3,000 cocoa trees.

472 Few Orokaiva are short of land in the area east of Popondetta
423 where the entrepreneurs are located. Land availability is not a
factor differentiating entrepreneurs from villagers, but the
availability of land other than that held under customary tenure
may well be.

241 The entrepreneurs appear to be more efficient food gardeners
472 than many Orokaiva, for even though they average less time garden-
184 ing (see Table 6)A they have more extensive gardens, as shown in
the following table.

Table 1

Area of land under cultivation for food gardens (acres)

	Per head of population	Per able-bodied person over 16	Per household
A's hamlet*	-	-	1.45
B's household	1.20	1.20	3.61
C's household	0.67	2.36	4.72
D's household**	0.75	1.50	3.00
Average	0.65	1.26	3.19
Average for Inonda and Sivepe***	0.34	0.69	1.48

* Measured for the six household heads in A's hamlet in December 1965 at the end of a long drought. They estimated their normal garden area to be nearly double this. A lives in a hamlet comprising himself, his brothers and some of his married children. The hamlet is a short distance from the village of Kapurahambo. [592]

** Estimated, not measured.

*** From Crocombe and Hogbin 1963b:10, and Rimoldi 1966:19. Inonda is a village on the sparsely settled plain, Sivepe village is located in the more fertile hilly country where population is denser. They were chosen as apparently representative of the two major ecological zones inhabited by the Orokaiva. All four entrepreneurs live in the former, plain zone. [361]

A.[Table 6 appears in Category 461, p.19--Analyst]

Cash crops

472 All four entrepreneurs were familiar with the very small scale
cash-cropping which had been undertaken in their villages for many
241 years, but because of the insignificant returns received from
activity of this kind they wanted to avoid it. In discussions
with the writer, they all referred frequently to their aim to plant
on a large scale and to operate their plantations the way European
planters did. The main differences were that the entrepreneurs
[477] were without capital and that they were prepared, at least until
the enterprise was established, to undertake manual labour them-
[464] selves.

The entrepreneurs A, B and C established their enterprises with
472 the help of their wives and of certain close junior kinsmen. Each
241 has occasionally hired labour, but none has been able to keep the
464 workers for more than a few months (though one man worked for A
for three years). The crops grown (coffee, cocoa and copra) are
592 all labour intensive. Moreover, A and B had to clear heavy forest
and C heavy undergrowth. A was helped by two younger brothers and in more recent years by two sons and a son-in-law. B has had the full-time labour throughout of his younger bachelor brother who lives as a member of B's household. C was able to enlist casual aid from his two younger brothers in the early establishment phase (and to a lesser extent from his father and his sister's son for food gardening). It is perhaps significant that none of them has called on more distant kinsmen, and none has called on unrelated people of the same village or neighbourhood. The reasons they gave, when questioned, were that the local people were lazy or resentful of their relative prosperity and, in the case of kinsmen, that they might expect disproportionate or inappropriate reciprocity.

472 B entered into an agreement with four men of two villages a few
miles from his own whereby they all helped each other clear separate
241 coffee plots in 1952. As B's was much larger than the others he
464 agreed to provide a small manual coffee pulping machine which all
four could use. There was some dissatisfaction by those with small
476 plots with the proportionate benefits derived from the mutual help
arrangement, and when B established his cocoa plot in 1959 only he
423 and his brother worked on it.

241 What rights do the close kin acquire in the crops they have
464 helped to establish? Orokaiva people frequently assist one another
to clear land for gardens and this involves no obligation beyond
476 reciprocal help. But planting, husbandry and harvesting were
[592] traditionally done by the household and were thus closely associated
with rights to the crop. A's enterprise began as a joint venture
241 with his brothers, though the initiative was provided by A. It
472 was not until after World War II that he encouraged and assisted
each of his brothers to plant their own individual coffee gardens.
592 A's gardens were then to be for himself and his sons jointly.

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472 Later again, in line with an agricultural officer's recommendation,
he encouraged each son to plant individually. He proposes that his
592 gardens should be inherited by his sons jointly, with work and
423 profits being shared by them.

428 B's bachelor brother speaks of the cash crops as B's even though both have worked on them equally together, but says that B 'looks after' financial and other matters on his behalf. Whichever of them dies first the other will inherit, but when both die the assets will be inherited by B's only surviving son, a former teacher who shares no interest in cash-cropping.

C claims sole rights to his plantation on the ground that he has compensated his brothers for their help with gifts and by assisting them to establish their own cash crops. There is reason to believe, however, that if C dies before his children are adult, his brothers will probably claim a share. Some other people of
[578] C's village regard the plantation as belonging to several sub-clans jointly and their challenge to his rights was a real threat until he was issued a formal lease.

472 D has no younger brothers, but he did have a government loan
241 (though it was not intended for hiring labour). With the loan
and gross profits from his store (see p.11 ff.) he has hired a
464 total of seven workers at various times. As with the labour
[654] occasionally hired by the other entrepreneurs, they have all left within a few months of engagement. The employers give no adequate explanation for this and, as I have been unable to contact the former employees, the reasons can only be postulated. In some cases the employer has had insufficient money to pay them but this has not always been the case. Almost all employees have come from twenty to a hundred miles away and most are from different language and culture groups from the employing entrepreneurs. This may well
[466] be due to the fact that the employer-employee relationship, with
[591] its clear-cut subordination, has no traditional precedent and is incompatible with Orokaiva notions of appropriate interpersonal relationships. New relationships of this kind are probably easier to establish with strangers and outside one's own community.

Since his attempts to engage permanent paid labour were not
[621] successful, in recent years A has frequently arranged for the
people within his hamlet (his children, his brothers and their
[602] children, two father's brother's sons and all their spouses) to undertake short-term tasks such as clearing or harvesting. At the end of each task he compensates them in cash or store goods. None of the others has developed this sort of arrangement.

472 The entrepreneurs have all benefited from assistance given by
654 government officers. Before the war A marketed his coffee through the government and he speaks of the Resident Magistrate assisting him to import and install a coffee machine and open a bank account.

472 654 242 Agricultural extension services were begun about 1950. A, B and D had close relations with particular officers and received significant help from them.

472 423 472 464 The number of cash crop trees owned by the entrepreneurs in December 1965 is shown in Table 2, together with the number of years since that person began cash-cropping. An attempt was made to estimate the number of adult male kin and the number of employees who have worked with each entrepreneur in terms of man-years, but this was unsuccessful because the people have no clear measure of the periods of time spent by each worker with the employer. Even when the period is reasonably accurately known it is difficult to use comparatively, for relatives who assist do so only from time to time and even employees were often not paid a regular wage nor expected to work all the time.

Table 2

472 423 245 Commercial trees owned by entrepreneurs in December 1965

Entrepreneur	Years since cash-cropping began	Coffee trees	Cocoa trees	Coconut trees	Total trees	Acres*
A	20**	4,400	3,500	-	7,900	22.9
B	14	2,512	1,153	-	3,665	9.6
C	13	-	717	340***	1,057	8.5
D	5	-	3,337	-	3,337	13.3

* Estimated from tree figures using conversion ratios of: 500 coffee trees per acre; 250 cocoa trees per acre; 60 coconut trees per acre.

** As most of A's pre-war trees were destroyed during the war, only his post-war cash cropping experience is considered here.

*** Most of these are old coconuts which were growing before C took over.

423 241 464 There may be a slight relationship between number of trees and the period since cash-cropping began, but I suspect there is a greater correlation between extent of cash crops and the supplementary labour used, whether mainly from kin in the case of A, B and C, or by using loan funds as in D's case.

Retail trading, manufacturing, processing and transport

472 441 (212) All four entrepreneurs own stores. A and B aspired to own trade stores for many years but did not establish them until they had literate sons to act as managers. The other two entrepreneurs are themselves literate. An illiterate employee operates C's store but

463 The five subjects who had hired labourers who were not related
472 to them all paid cash wages. A and H have received $1,500 government loans to develop their blocks and have thus had the capital
464 to pay for labour. They have not relied on kinship assistance at
426 all. The loan has been an effective substitute for kin ties. L
derives the capital necessary to hire labour from her trade store.

657 It will be noted that all non-relatives are paid in cash, but
most relatives are paid in kind. Most entrepreneurs are still
463 dependent on the help of relatives, as they do not have the cash
472 to pay hired labour, and are thus forced, willingly or not, to
465 exploit their kinship ties.

464 Property

602 Land and cash crops. Most of the twelve subjects did not have
any records of cash crop production or sales, so it was impossible
463 to calculate their success in cash-cropping according to these two
criteria. For this reason their cash-cropping activity has been
472 assessed in terms of the number of economic trees each has planted.

423 Ten of the twelve entrepreneurs have cash crops, and another has
245 cleared land for 500 coffee trees. The following table shows that
the most successful entrepreneurs have the fewest cash crops. The
[426] largest cash croppers (A, D and H) have leases of government land
[427] and government development loans of $1,500, but even when they are
[657] omitted the proportions between the three groups remain similar.

Table 13

Commercial trees owned by each entrepreneur*

Entrepreneur	Coffee	Coconut	Cocoa	Total economic trees	Title to land	Years since cash-cropping began	Average trees
A	100	-	1,085	1,185	L	3	702
B	-	-	-	-	-	-	
C	334	88	-	422	C	?	
D	-	-	1,200	1,200	L	4	
E	1,600	11	-	1,611	C	20	1,800
F	300	46	100	446	C	9	
G	388	52	-	440	C	7	
H	-	-	4,702	4,702	L	4	
I	-	170	200	370	C	11	168
J	intends to plant	-	-	-	C	-	
K	150	-	-	150	C	9	
L	150	-	-	150	C	10	

* Coconut and other trees used for home consumption only have been excluded.

Foreword

121 This paper is concerned with an experiment initiated in 1964 in
the Northern District of Papua in which land previously held under
423 customary tenure has been converted to registered individual title
in accordance with the Land (Tenure Conversion) Ordinance 1963.
Three main aspects of conversion were examined:

(i) the motivations and expectations of the people at one of the first conversion schemes, Ombi-Tara;

(ii) the effects of conversion on productivity, land use, residence patterns, work organisation, and social life at Ombi-Tara;

(iii) the cost to the government per acre and per block (i.e. farm) of tenure conversion in the Northern District.

127 Much of the data on the costs of conversion was collected from
official files. Where recorded information was not available,
124 estimates based on interviews were used. The body of the Ombi-Tara
data as set out in Chapters 3 and 4 was gained from personal inter-
views carried out between 9 January and 11 February 1966. During
122 these periods my assistants and I lived in the single men's house
in Ombi village.

124 All males over the age of fifteen resident at Ombi-Tara were
115 interviewed with the exception of one old man. In addition we
interviewed two 'outsiders' who have applied for blocks in the Ombi-Tara scheme. One is a man of the main clan at Ombi (Mumu) who now lives in a neighbouring village but intends to move to Ombi soon. The other is a Papuan Agricultural Assistant who is stationed at Ombi but whose home village is near Cape Killerton about forty miles away. Interviews were conducted in the local language through interpreters.

128 Interviewing has serious defects. The answers one gets can only
be as good as the questions asked. Although we followed up all
answers with probes and long, informal discussions, talking is a
poor substitute for rigorous and sustained observation over a
[121] period of years. The only justification for using this method is
that time was short, and that this paper is intended only as an
exploratory attempt to examine the operation of the 1963 land
tenure conversion legislation in the only district where it has
so far been applied.

Chapter 1

Introductory

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241 The first legislation aimed at encouraging Papuans to engage in cash cropping was introduced in 1894 by Lieutenant-Governor MacGregor six years after the beginning of the British administration in Papua. Nevertheless, policy was mainly directed towards the promotion of European enterprise until after the 1914-18 war, when the difficulty of attracting European settlers to Papua caused a shift towards promotion of indigenous agricultural development.[1] At first communal cash crop gardens were promoted but as the disadvantages of this system became known,[2] emphasis shifted to encouraging each family to cultivate an area of cash crops separately. Cheetham (1962:68) states that this policy was clearly established by 1956.

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423 An ad hoc committee was established in November 1956 to consider the conversion of land from customary tenure to individual freehold title.[3] The committee submitted its report in 1957 and there followed a period of research and discussion, culminating in the policy statement on land tenure in the House of Representatives on 7 April 1960 in which the Minister said:

> (1) The ultimate objective was to introduce a single system of land holding regulated by the central Government by statute, administered by the Department of Lands of the central Government, and providing for secure individual registered titles after the pattern of the Australian system.
>
> (2) Only the central Government...may issue and register land titles.

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[1] On the history of official policy on agricultural development see Crocombe 1964a.

[2] See Crocombe 1964a:33-7.

[3] Land under 'customary tenure' includes 97 per cent of the total area of Papua-New Guinea. The Administration has purchased 2.5 per cent of the total area, and non-indigenes have freehold title over 0.5 per cent.

> 657 423 (3) Land subject to native custom remains subject to native custom only until it is taken out of custom either by acquisition by the Administration or by a process, to be provided for by ordinance of the Territory, of conversion of title to an individual registered title. (Hasluck 1960:1021.)

Five bills embodying the new land policy were passed by the Legislative Council in 1962-63. The most significant of these from the point of view of the individualisation of tenure were the Land Titles Commission Ordinance 1962 under which the old Native Lands Commission was replaced by the Land Titles Commission, and the Land (Tenure Conversion) Ordinance 1963 which sets out the procedures to be followed in tenure conversion (see Appendix A). The Land (Tenure Conversion) Ordinance 1963 was brought into operation on 3 December 1964. It embodied safeguards against fragmentation in that no land which is less in either area or frontage than a certain minimum may be registered, and no more than six persons may be registered as joint tenants or tenants in common of any interest in land.

The five current ordinances relating to land allow village people holding land under customary tenure three alternatives. First, they may continued to hold the land under customary tenure. Second, where a group has undisputed control of a piece of land and desires a more formal recognition of its rights it may secure title under native custom by having the land registered as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962. Third, individuals or groups of not more than six persons may apply to convert land previously held under customary tenure to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963. This action may only be taken with the approval of all those holding customary rights in the land to be converted, and where all clearly understand that the land is being placed outside the jurisdiction of traditional custom.

Land tenure

423 614 Among the Orokaiva there are no land rights at the tribal level. Each tribe is divided into a number of clans, each of which is further composed of a number of sub-clans, which are usually dispersed over the tribal territory. Each sub-clan holds rights to specific areas of land. Within the sub-clan rights are held by individuals and groups of individuals.

Thus the traditional Orokaiva system was not one of 'communal tenure' and individuals as well as groups held rights to land.[1]

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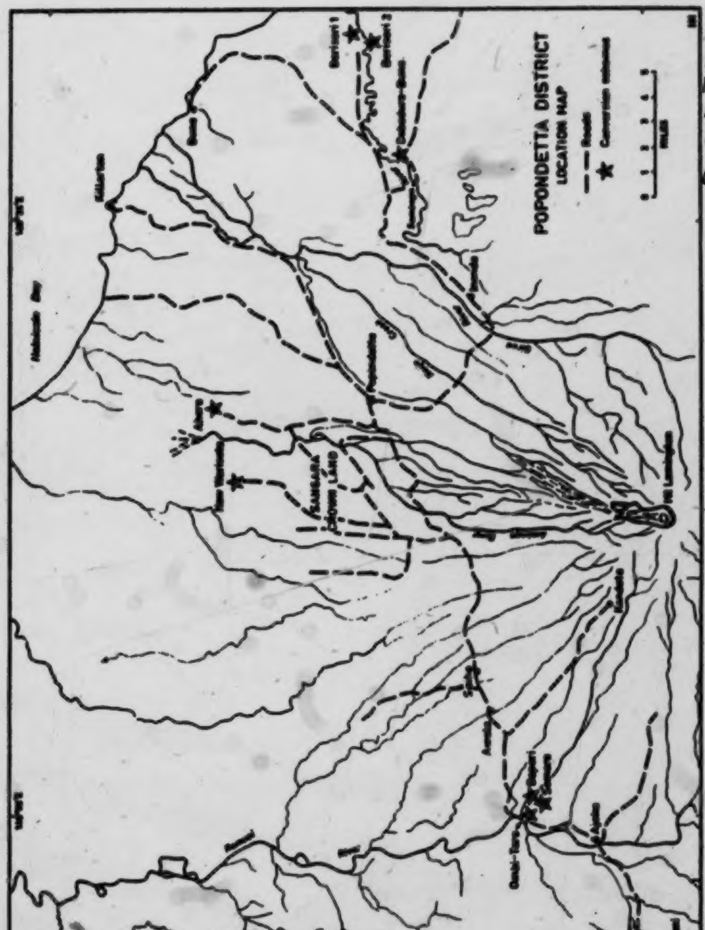
[1] Ironically, it appears that by registering areas of land as communally owned under the Lands Registration (Communally Owned Land) Ordinance 1962 the Administration is introducing communal holding of land where it did not exist previously.


POPONDETTA DISTRICT
LOCATION MAP
Roads
Conversion schemes
0 1 2 3 4 5
MILES
Holnicote Bay
Killerton
Buna
Beriseri 1
Beriseri 2
Popondetta
SANGARA
CROWN LAND
Ahora
Saiho
Awala
Ombi-Tara
Mt Lamington

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131
133
491
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This has been documented by recent research carried out in three Orokaiva areas: at Inonda by Crocombe and Hogbin (1963:28), among the Yega by Dakeyne (1965), and at Sivepe by Rimoldi (1966:95).

[361]
[241]
Under the traditional Orokaiva tenure system most individuals have rights to several pieces of land scattered throughout the area claimed by the clan. Thus an individual often has to walk some distance from one food garden to another and he may have only a small area of land on each plot. These facts were significant in determining the attitudes of the Ombi-Tara people to tenure conversion (see Chapter 3).

An individual is considered to have a presumptive right to clear bush behind his plot in order to extend his planting, without consulting other members of the clan.

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Clearing of bushland is often a community affair, with the lineage and sometimes the whole sub-clan co-operating, but planting is organised by individual households, with some reciprocal assistance from other households for specific tasks at irregular intervals.

Land use

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The Orokaiva grow their crops using a system of bush fallow rotation - sometimes called shifting cultivation - which is common in many tropical areas. Newton (1960:81) describes it as a system under which land is cleared and cropped for two or three years, after which the cultivator allows it to revert to natural vegetation cover and shifts to a new garden. He may abandon land because depletion and erosion cause declining yields, but in many instances he does so because less labour is involved in clearing new land than in using old gardens where weed and pest species are established. Brookfield and Brown (1963:166) suggest that in the absence of fertilisers, capital equipment and improved techniques of agricultural production, no successful alternative to bush fallow rotation has yet been found for tropical agriculture.

Residence patterns

361
[592]
[621]
[614]
The Orokaiva live in villages but each nuclear family usually occupies a separate house. In pre-contact times villages were large, probably because clan members clustered together for mutual protection (Williams 1928:155). However, in 1928 Williams noted a growing tendency for small groups to form independent settlements. Families sometimes lived 'for weeks at a time in their garden houses...no small distance from the permanent village.... Some families...settle permanently on the site of their distant gardens' (Williams 1928:129).[1] The present fairly large village appears to be a relatively recent return to the pre-contact pattern.

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[1] Native Regulation No.90 of 1922 stated: 'The practice of people abandoning their old homes in settled villages and scattering

Post-war tenure innovations in the Northern District

657 654 ●423 The Higaturu Local Government Council land registration scheme, begun in 1956, was one of the earliest attempts to rationalise tenure in the Northern District and to increase agricultural productivity. Under this scheme all lands on which cash crops were being planted were to be registered by the Council after a survey by chain and compass. The individual in whose name the land was registered could transfer it or nominate heirs to it without reference to the clan or any other group. The scheme was superseded by the tenure conversion legislation of 1962-63.[1]

A second post-war tenure innovation in the Northern District was the Yega agricultural scheme[2] under which in 1960 a group of villagers agreed to set aside a portion of uncultivated land for use by individual members of the group. External boundaries were agreed upon and individual blocks were marked out and plotted. The 1962-63 land legislation has enabled persons holding title under native custom to convert to individual registered title in accordance with the Land (Tenure Conversion) Ordinance 1963 and on 16 December 1965 fifty-six applicants from Yega were granted individual titles to blocks averaging ten acres in area (Smith 1965).

No conversions were made under the 1962-63 legislation until late 1964. Following a recommendation from the Land Development Board it was decided that conversion under the new legislation should be confined in the first instance to the Northern District in order to test and refine procedures. Applications for conversion were being received at a rate of over one hundred per month in the Northern District during 1965. At the end of December 1965, thirty-four tenure conversion schemes[3] were under way in the Northern District, covering 1,725 blocks (i.e. farms) and 33,566 acres. By 10 February 1966 Land Titles Commission hearings had been completed for five schemes, covering 219 blocks and 4,328 acres.[4]

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1 (continued)

361 themselves in small groups over the face of the country is growing in the land.' Feinberg (1956) suggests that the tendency to spread in this way is common in recently contacted societies.

[1] For details of the Higaturu Council registration scheme see Crocombe and Hogbin 1963:89-96.

[2] For a detailed discussion of the Yega scheme see Dakeyne 1965.

[3] Each of which comprised up to sixty or more blocks (each of which would become one farm).

[4] In addition, 120 blocks (3,148 acres) had been formally surveyed; 269 blocks (2,960 acres) were awaiting survey; and 596 blocks (12,570 acres) were awaiting investigation by officers of the Department of Agriculture.

Chapter 2

The Ombi-Tara conversion scheme

657 423 631 Two Orokaiva villages, Ombi (also known as Ombisusu) and Tara combined in the Ombi-Tara conversion scheme which was among the first to be promoted in the Northern District under the *Land (Tenure Conversion) Ordinance* 1963.[1]

[621 614] Ombi and Tara contain two clans, *Mumu* and *Kuei*. The *Mumu* clan is concentrated in Ombi village and the *Kuei* in Tara. However, Ombi has three *Kuei* households and Tara has one *Mumu*.

At the time of our stay 178 people were living at Ombi-Tara. There were twenty households in Ombi, nine in Tara, and six on the converted blocks, close to the access road running between Ombi and Tara (see the conversion plan on p.12).[A]

Thirty-five of the forty-one resident adult males had applied or wished to apply for converted blocks; the remaining six were old men who said that they were too old to apply for blocks. Four of them had sons who had applied.

Cash cropping experience of the Ombi-Tara people

249 654 The Ombi-Tara people's experience with cash crops began when they planted some bush rubber seedlings after the first world war. They were encouraged by the Administration under Native Regulation No.121 (*Native Regulation Ordinance* 1908-30).[2] Although the trees were neglected for some years they continued to grow, demonstrating the suitability of the area for rubber (Mann 1954:35). After some time villagers began tapping the trees and selling the latex to a local planter.

383 654 In mid 1964 the Department of Agriculture suggested that the Ombi-Tara people should process their own latex with hand rollers and coagulating pans at first supplied by the Agriculture Department,

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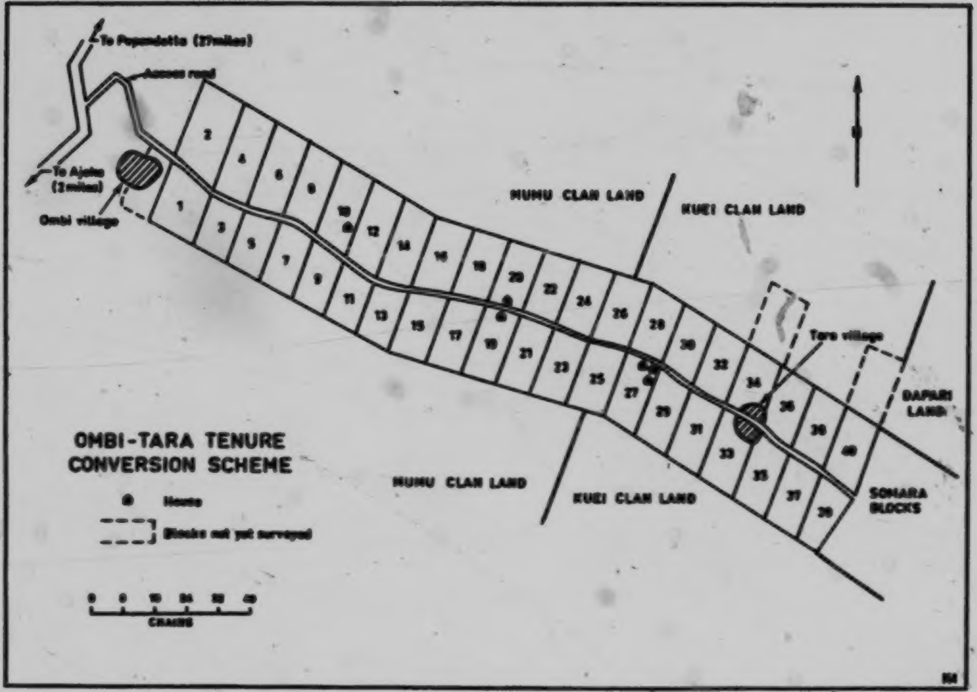
[1] On the Ombi-Tara environment see Appendix B.[B]

[2] On village planting of bush rubber in what was then the Kokoda District see Rimoldi 1966:86-93.

A [See Category 102--Analyst]

B [See Category 133 pp. 49ff.--Analyst]



OMBI-TARA TENURE CONVERSION SCHEME

To Popondetta (27miles)
Access road
To Ajeka (2 miles)
Ombi village
MUMU CLAN LAND
KUEI CLAN LAND
Tara village
DAPARI LAND
SOMARA BLOCKS
1
2
3
4
5
6
7
8
9
10
11
12
13
14
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17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
House
Blocks not yet surveyed
0
5
10
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30
40
CHAINS

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242 Department of Agriculture. Clonal seedlings for the nursery were
249 obtained from Malaya and from the Agriculture Department's experi-
mental stations at Itikinumu and Bisianumu. Villagers can buy
[654] seedlings at 1 cent per stump.

While the seedlings were growing, several meetings were held in
the two villages to discuss how the rubber should be planted. The
suggestion of a communal plantation received little support, which
is not surprising in view of the recent failure of the communal
[423] cocoa experiment. At these meetings the Agricultural Officer
suggested that each man might plant some of the new high yielding
[425] rubber on his own land. He was supported in this by Charles and
eventually the people asked for individual blocks of land. There
appears to have been no opposition.

657 The history of conversion at Ombi-Tara admirably illustrates
Fisk's contention (1964:159) that the personality and character of
177 the administrators, officials, missionaries and other members of
654 the advanced sector involved are often as important to the success
of a planned programme of intervention in a subsistence economy as
the composition of the programme itself. Although the Agricultural
Officer has since left the country he is warmly remembered by the
Ombi-Tara people. It is a tribute to his understanding and tact
that most of the villagers consider conversion was their own idea.

The significant role played by Charles in gaining the approval of the Ombi-Tara people demonstrates the value when introducing innovations in a rural community of working through an influential member of that community. After studying the introduction of changes in techniques in a Victorian country area, Emery and Oeser concluded (1958:52-3) 'No matter how highly regarded he may be the District Agricultural Officer remains, sociologically speaking, an outsider' and has much greater effect if he works through a local leader. These findings are extremely relevant in Papua-New Guinea where the sociological gap between Agricultural Officer and farmer is far greater than in Victoria.

The new land system

657 The new land tenure arrangements were worked out by the villagers
and the Agricultural Officer during late 1963 and early 1964. It
423 was decided that 800 acres of the total area claimed by the two
[311] clans should be converted into forty blocks of twenty acres (see
the conversion plan on p.12). Most of the 800 acres was formerly
covered with bush and appears to be of relatively uniform agricul-
tural potential.

657 The unconverted land outside the scheme has not yet been surveyed
and estimates of its area vary from 2,000 to 4,500 acres. All
423 rights to land held by individuals before conversion have been
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657 abolished by agreement of the two Ombi-Tara clans,[1] including both
423 rights to the 800 acres which have been converted and to land
425 remaining outside the scheme.

614 Each twenty acre block is now held under individual registered title by one man, the blockholder. No rights are held in any block by the clans or other entities.

Lands held by members of the Mumu and Kuei clans are still separate, and a large tree stump continues to mark the boundary between them. However, while individuals formerly had some rights in clan land held under customary tenure the land outside the conversion scheme is now held communally by agreement of clan members.[2] The clan leader has control of the unconverted land and his approval must be gained by anyone wishing to cultivate it.

However, each man is considered by the villagers to have the presumptive right to clear the bush on unconverted land behind his block in order to extend his planting as far as the clan boundary. He may do so without consulting the clan leader, and regardless of who held rights to the land under the old system. This tight is not recognised in law, and appears to be derived from traditional practice. A similar presumptive right of extension at the rear of one's block was agreed upon by the Yega villagers (Dakeyne 1965:136).

The conversion process

657 The Department of Agriculture carried out a preliminary survey
of the land to be converted in July and August 1964, clearing bush
423 from what was to be the access road and along the boundaries of the
blocks. During December 1964 and January 1965 field staff of the Land Titles Commission, assisted by Department of Agriculture personnel, completed the surveying and marked all corners with cement and wooden pegs.

657 Thirty-five applications for blocks had been formally lodged up
to 9 February 1966 when the Land Titles Commission conducted its
423 hearing. No objections were raised so unless there is an appeal
425 within ninety days, individual title in fee simple would be granted
to each of the thirty-five on 9 May 1966.[3] Eight more men wished to apply in the near future. Since only forty blocks were marked out, three of these eight men intended to apply for blocks as yet unsurveyed.

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[1] See p.27 ff for some problems raised.[A]

[2] In law it is regarded as being held under 'customary tenure'.

[3] There were no appeals. Titles had not been issued at the beginning of November 1966, but it was expected that they would be issued soon.

A [See Category 423—Analyst]

Allocation of blocks

657 423 425 The principles applied by the Ombi-Tara people in the allocation of blocks are not clear, but it appears that men tried to get blocks on land in which they formerly held rights. It seems that no single person controlled the allocation of blocks but that each person claimed the block he desired. We were told that two people claiming a single block settled the problem themselves without reference to a third party.

[614] As far as possible men claimed blocks on land recognised as belonging to their own clan; thus the three men of *Kuei* clan at Ombi got blocks furthest from Ombi village, about two miles away. One man of *Mumu* clan was given a block on *Kuei* land, reportedly because of a shortage of *Mumu* land. The *Kuei* clan leader said he was very happy to give him a block on his clan's land because 'we are doing a new thing and we want to be friendly with each other and not fight as we sometimes did before'.

The forty-three blockholders[1] include thirty-five men resident in Ombi and Tara villages; two men each from Ombi and Tara who were absent working for wages; a man of *Mumu* clan who lives in a neighbouring village but intends to move to Ombi in the near future; two Anglican Mission staff, one a Bishop due to transfer soon from Samarai to Popondetta, the other a priest stationed at Sasembata, about three hours' walk from Ombi;[2] and the Papuan Agricultural Assistant who is stationed full time at Ombi-Tara. None of the last three people has kin ties with any person at Ombi-Tara.

Clearing and planting blocks

249 476 [311] [654] Blockholders began clearing the portion of their blocks nearest the access road soon after the preliminary survey of July-August 1964. For clearing the villagers worked in several groups, with each group spending one or two days on the block of each of its members. The first one year old G.G.I. (Malayan) rubber stumps from the Department of Agriculture nursery were planted in late September 1964. Planting was done by individual householders and their families, with only occasional help from kinsmen. It is traditional Orokaiva practice for clearing of bush to be undertaken by groups of kinsmen but for planting to be carried out at the level of the individual household.

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[1] 'Blockholder' is used for convenience throughout the rest of this paper to refer to the forty-three people who have applied, or intend to apply for blocks.

[2] It is not clear for what purposes these two blocks will be used.

Security of tenure

423 241 [182] [829] It is often suggested that the main benefit from tenure conversion is the provision of security of tenure for villagers who wish to plant cash crops. The Ombi-Tara people, however, did not consider security of tenure as a major benefit of conversion. They explained that each man had previously held individual rights to land which were sufficiently secure for him to plant cocoa and coffee. A man could plant such cash crops without consulting the clan leader or other members of his clan, and without others disputing ownership of the crop or distribution of the proceeds. [578] Fourteen people did mention that conversion and the introduction of cement and wooden corner pegs would help to prevent disputes; but they felt the disputes to have been caused by the previous small size of individual plots which sometimes made it difficult for a man to extend his planting (because he would be encroaching on another's land); and to vagueness of boundary lines. Some also referred to the need to clearly mark out land boundaries to forestall potential encroachment by persons from outside Ombi-Tara.[1]

Consolidation of holdings

423 311 361 [829] Most Ombi-Tara people saw consolidation of their previously scattered holdings as the main benefit from tenure conversion.[2] Many people drew finger diagrams on the ground to explain how conversion led to consolidation. Under the traditional tenure system cash cropping involved long walks from village to food gardens and to cash crops.[3] Consolidation not only reduces walking time, but also allows an individual to undertake large-scale planting in a single area. He was previously unable to do this because of the small amount of land he held in each plot, and in some cases because of the small total amount of land to which he

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[1] In contrast to the Ombi-Tara situation Crocombe and Hogbin (1963:72-80) found in another Orokaiva village that lack of security of tenure was a factor discouraging certain individuals from planting cash crops.

[2] Mentioned by thirty of the thirty-seven blockholders interviewed, including the four most influential people - Charles, the two clan leaders and the Local Government Councillor. These people should be distinguished from the 20 per cent or so mentioned earlier for whom the innovation of conversion was less significant than the change to planting rubber.

[3] Waddell (1966:7) found in another Orokaiva village that time spent travelling to and from places of activity was about 15 per cent of the total time devoted to that activity.

423 had rights.[1] Conversion has caused a redistribution of land rights,
311 with some people losing and others gaining land. Several men who
claimed they had less land after conversion than before said that
361 twenty acres was ample for their needs and that they were pleased
829 to give up some land to help their co-villagers.

There are indications that conversion at Ombi-Tara has facili-
657 tated co-operation between villagers who are planting cash crops.
423 Previously any man who wished to plant cash crops had to work with
182 little assistance, often in a relatively inaccessible area. Since
476 conversion has been introduced, the new road gives easy access to
all blocks and people are more easily able to help one another.

361 Paradoxically, conversion to individual holding of land appears
491 to have strengthened intervillage, interclan and interpersonal
co-operation and to have fostered a community spirit. Intervillage
657 co-operation is demonstrated by the establishment of a joint Ombi-
Tara bank account to purchase equipment for the bush rubber
423 processing unit, and by joint discussions on the nature of the
621 new tenure system. Interclan co-operation is seen in the leader
182 of the *Kuei* clan granting permission for the allocation of a block
on *Kuei* land to a man of *Mumu* clan. Interpersonal co-operation is
illustrated by the apparent willingness of large landholders to
give up all previously held land rights without receiving any
compensation, in order to enable all to take part equally in the
scheme.

659 The Ombi-Tara people are pleased and flattered that many people
423 visit and inspect the blocks. They heard that Ombi-Tara was men-
tioned on the radio and are happy that others ('people all over
182 Papua-New Guinea') should know of their experiment. When two
186 Australian friends of mine paid a short visit to Ombi they were
asked with expectant pride if they had heard of the Ombi-Tara
scheme in Australia. The leader of the *Mumu* clan said, 'We want
Ombi-Tara to have a big name like England, Japan, Hong Kong, Rabaul
and Lae'.

Publicity and information

657 Most Ombi-Tara people (82 per cent) said that they first heard
423 of the possibility of converting land to holding under individual
title after the visit of the Agricultural Officer in late 1963.
177 No one reported hearing first about conversion through Local Govern-
ment Councils, from the Anglican Mission, on the radio or through

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[1] The then District Agricultural Officer considered consolidation of fragmented holdings to be one of the main benefits that would emerge at Yega, the first tenure conversion scheme in the Northern District (Belfield 1962:1-2).

657 the Yega tenure conversion scheme. An influential minority (18 per
423 cent), which included Charles, both clan leaders and the custodian
of the savings account, said that they had first heard of blocks
177 through the Sangara ex-servicemen's resettlement (not conversion)
scheme which is about twenty miles from Ombi.

Many of the Ombi-Tara people had at some time worked at Sangara clearing bush, planting seedlings or tapping rubber trees. Six of the seven men who said they had first heard of individual blocks from Sangara had worked there as had ten of the fifteen men who mentioned Sangara in answer to the more specific question 'have you heard of any other scheme where there are individual blocks?' (Nine people mentioned Yega in response to this question.)

Moreover, the European ex-servicemen at Sangara live a life
[185] which many Ombi-Tara people find attractive. Several people sug-
gested that they would like to employ labourers and work less hard
[461] themselves, 'like the Europeans at Sangara'.

Four people reported that Administration and/or mission personnel had warned them that if they did not use their land 'properly', people from other places might come and take it. Russia, Japan, Indonesia and Hanuabada were the places mentioned. I am unable to determine how much weight the Ombi-Tara people placed on this factor in their decision to implement tenure conversion.

After two or three successful conversion schemes were introduced, the demand for tenure conversion spread rapidly throughout the Northern District. In February 1966 the District Commissioner wrote (Williams 1966:5): 'Far from having to sell the idea we have been somewhat embarrassed by the number of requests which have been received.'[1]

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[1] Similar experience has been reported from Kenya (see Healy 1961:77).

Chapter 4

Effects of conversion at Ombi-Tara

Land use

657 Since conversion the blockholders have each planted an average
423 of three and a half acres of high yielding rubber and some have
cleared a further two or three acres in preparation for further
182 planting.

311 Most households are interplanting their food crops with the
241 rubber seedlings as they say it saves time and effort if all crops are on one plot instead of scattered as before conversion. Thirteen people reported that they have food crops growing on unconverted land outside their blocks. Six of these had blocks about twenty-five minutes' walk from the village, and have planted some food on clan land closer to home. Three of the others said that they intended to transfer their food crops on to the blocks shortly. Three people reported that they have coffee trees which were planted before conversion growing outside the block.

[614] The Ombi-Tara people intend to keep the clan land outside the converted area for use by future generations or by members of the present generation who wish to expand their holdings.

Residence patterns

657 Those people whose blocks are closest to the village have tended
to remain in the village. Those with more distant blocks have
423 either abandoned their village houses and moved to the blocks - six
182 families have done this - or planted some food crops on clan land
[361] close to the village to avoid having to walk long distances to get
food.[1]

[592] The traditional Orokaiva custom of living in single family households has been maintained, with only four of the thirty-five households at Ombi-Tara containing more than one family. In three

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[1] Dakeyne (1965:136) notes that the Yega people moved on to their blocks soon after the Yega conversion scheme began.

657 of these four households one of the resident families intends to
423 build or is building a house into which it will move shortly.

182 Many who have remained in their village have erected temporary
592 shelters on their blocks in which they spend one or two nights at
a time. None of the Tara people has left the village, but no one
657 has to walk more than ten minutes to reach his block.

423 Five of the six men who have moved with their families on to the
182 blocks are living in two hamlets. In the first settlement, about
361 twenty-five minutes' walk from Ombi village, two men have built
houses on their own blocks on either side of the access road. In
addition, they have built a 'meeting house' in which passers-by
can sit and chat, and a latrine. One is the son of the other's
mother's brother.

In the second settlement, about forty-five minutes' walk from Ombi, three households are situated on one block. The three households belong to the blockholder, his sister's son (who holds an adjacent block) and his father's brother (who is not a blockholder).

[789] The sixth man to have moved from the village claimed that one
of the old men at Ombi was destroying his taro by practising
sorcery, and moved to his block, ten minutes' walk from the village,
to protect it.

[592] Apart from this last man those who have moved to the blocks are
living in small kinship groups rather than as individual farmers
[494] each on his own block. In addition, each of the block residents
[525] spent a considerable amount of time in Ombi village during our
stay, particularly while gambling during the weekends. One brought
his family to Ombi after his wife had a baby and stayed for a few
days in the house of a kinsman.

Although only six men have moved to the blocks, another twenty said they would like to do so in order to be able to work on their rubber away from the distractions of village life, like Council and mission work. Most of these people said that they were 'not allowed' to move. Some said it was Administration policy that people should stay in their villages and quoted particular officers (from two different departments) who had told them not to leave the village. Some said that they were not allowed to move to the blocks until they had a 'licence' (possibly a reference to the title document) or until all the people in Papua-New Guinea had done so, or until the local member of the House of Assembly had been told about it in the House. Some said that they should not move until the Administration told them.

Three people said the Administration favours villagers living on their blocks. Two of these do so and the third said he is waiting till the other villagers move before he moves.

657 The Local Government Councillor presumed the Administration
423 wanted people to stay in the village. He said that he would prefer
192 to live on his block but would not move as he might be gaoled for
361 doing so.[1] He had ordered two men from Ombi who started building houses on their blocks to stay in the village.

Administration officers said there was no longer an official policy on where people should live, but that individual officers had different ideas on the matter. As this is the source of much of the misunderstanding an official statement of policy through the Local Government Council may be helpful. Over half the people replied to the question 'where would you prefer to live - in the village or on the blocks?' by saying that whichever the government wanted they would do.

It has been said that conversion leads people to settle on their blocks, thus encouraging the breakdown of the village and lessening the attractions of village life for the younger generation, causing them to 'drift' to the towns. Several people, however, including one man who had intended going to Rabaul, mentioned that they preferred growing cash crops at Ombi-Tara to working for wages now that conversion has been introduced. It seems possible, therefore, that conversion may help to increase the attractiveness of the village rather than decrease it.

Social organisation

657 The land tenure system lies at the heart of social organisation
423 and 'may actually define the social and economic status of indivi-
182 duals in an agrarian economy' like that of Papua-New Guinea (Parsons
1963:4). Any alteration in the tenure system is bound to have far-reaching social implications.

Social changes occurring at Ombi-Tara are related not only to tenure conversion but also to the wider adaptation which occurs when a subsistence society comes into contact with the market economy. Some traditional practices are abandoned, as the initiation ceremonies, the taro festivals and multi-village feasts have

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[689] [1] The idea that a person may be gaoled for moving out of his village seems to come from observing other people in the area being gaoled under Native Regulation 101 (Native Regulations 1939 of the Territory of Papua as amended). This Regulation empowers the magistrate to declare any isolated group of less than three houses a 'Forbidden Settlement' and to direct the native inhabitants 'to remove to a regular village or villages within their district within a time to be specified by him'. Failure to comply with such an order carries a fine of not more than $2 or imprisonment for up to two months.

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been at Ombi-Tara, in favour of briefer parties which distract less from market oriented activities.[1]

[829] There was verbal evidence at Ombi-Tara of further rejection of old customs since the introduction of tenure conversion. Informants often suggested that conversion marks the beginning of a new life - 'Before we were not using our land well but now we are changing everything and we will live better'. Several previous innovations in the Northern District have been greeted in like fashion (see Belshaw 1951:249, and Crocombe 1964a:29-32).

[622]
[554]
[614] Leadership in the traditional societies of Papua-New Guinea is generally not inherited but achieved through personal excellence in economic and political organisation and the main activities of the society including a knowledge of land tenure arrangements. It was decided by the members of the *Mumu* clan that their clan leader was too old to understand and adapt to the new land system. His son was not considered clever enough to succeed him and eventually the thirty-five year old son of the leader's brother was chosen as successor.

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[556] The introduction of tenure changes tends to favour younger men who no longer need to defer to their elders for cash crop land. Tenure conversion at Ombi-Tara may also affect the balance of 'informal' authority in the area by altering the balance of land rights. Before conversion some individuals had rights to considerably larger areas of land than others. This was of some significance in determining status and prestige. Since conversion, each individual has rights to twenty acres of land. The long-term effect of this equalisation on social organisation and informal status and prestige systems may be of some significance.

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[627] The functions of the clan leader are little changed by the new tenure system. As before, he has no jurisdiction over land held by individuals. He previously had limited authority to intervene if one man planted on another's land without permission and under the new system can prevent one man planting behind another's block. He is charged with preventing people from other clans or other areas planting on his clan's land in much the same way as before tenure conversion, with the difference that now his jurisdiction in this matter applies only to the clan land outside the blocks.

Obligations

591 Mutual assistance and mutual obligation patterns provide a system of social security, a form of institutional safeguard

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[1] Similar changes have been reported in another Orokaiva area by Crocombe (1966:71-2) and Hogbin (1966:81-3).

571 against sickness, crop failure and other catastrophes. The mutual
[602] obligation system which operates among kinsmen 'acts as a man's
trade union, his friendly or benefit society, his slate club and
[182] his orphanage; it takes the place for him of health insurance, and
if needs be provides for his funeral' (Lawrence 1964:34).

121 If it is hoped to set up individual farmers independent of their kinsmen some substitute must be found for the traditional method of social insurance. For as Fisk (1961:777) has pointed out, 'in an underdeveloped country...ready and prompt access to assistance in time of need is a variable of considerable importance to the settler'. Attempts to break down traditional obligation patterns by individualisation of tenure have often met with little success. In Egypt (see Gadalla 1962:80) and in various parts of the Pacific (Crocombe 1964b:127 and 1965:15) land registration schemes designed to result in individual tenure have failed to achieve individual ownership and use of land.

476 There are indications that traditional obligation patterns may
be continuing at Ombi-Tara since tenure conversion was introduced.
571 Blocks were cleared by kin groups in accordance with custom. Two
178 men mentioned that there had been an arrangement whereby if a
person worked on the block of another man but the second man did
[689] not reciprocate, he would have to pay the first man 80 cents.
However, both people said that no one had had to pay it. Two men who were working for wages on road maintenance near Ombi village bought food from the nearby store for those who helped clear their blocks. Five people claimed that they had helped clear other people's blocks but had not received any assistance in return. Everyone who was questioned said that no new obligations had been established by the process of clearing but this may be open to question.

423 It has already been mentioned that conversion involved substan-
tial redistribution and equalisation of right holdings. Whether
657 obligation to the 'donors' will be established as a result is a
matter for future observation.

The blocks of three of the four absentee blockholders were being cleared and planted by kinsmen. The block of the fourth absentee had not been cleared at the time of our stay. It is likely that some obligations will be established by this assistance.

Two families are living in houses constructed on the block of another man; and several people have cocoa, coffee or bush rubber trees growing on blocks held by other people. These situations are discussed on p.29 below.[A]

The Ombi man who moved to his block to protect his taro from the sorcery of another villager replanted some of his taro on the block of a kinsman, for further protection. This was the only reported case of a person planting crops on the block of another

A [See Category 425--Analyst]

657 man since tenure conversion was introduced. It suggests that in
423 situations of stress, as when sorcery is feared, traditional tenure
patterns may take precedence over the newly introduced system.

Several people mentioned that they will in future share the proceeds from their rubber with non-blockholding kinsmen, but most said they would not.

Inheritance of converted land

657 In law blockholders may depart from the traditional pattern of
423 inheritance when disposing of their land. As far as could be
428 ascertained, most of the Ombi-Tara people wish to continue the
traditional Orokaiva inheritance pattern, under which the first
[178] son generally has some precedence. The first son is not, however,
the sole owner but rather the nominal trustee of the land for all
sons. If the landowner has no sons, his daughters may keep the land
in trust for their sons and in some cases the daughter's husband may
also acquire some rights.

Several people intend to pass their blocks to the first son only and expect any other sons either to take up another block on what is now clan land, or to gain wage employment in an urban area.

Work organisation

657 The time spent in Ombi was too short to enable any conclusions
423 to be drawn about the effects of conversion on work organisation,
but a few general points may be made. There was no set routine in
182 the sense of particular days being set aside for particular kinds
512 of work. A number of people reported that Wednesdays and Fridays
are set aside for Mission and Council work when required. During
our stay no Mission work was done and Council work was done only
on the first Friday, when most of the men went to a village two
miles away to cut the grass around the Administration school, due
to open the following week. Gambling occupied many people for much
of Saturday and Sunday but others carried out normal work in the
gardens on these days.

657 Husbands and wives worked together on food and cash crops, but
423 I am unable to estimate whether husbands work more on cash crops
and wives more on food crops as has been observed at times else-
182 where.

[462] Five men were employed on maintenance work on the Popondetta-
[464] Kokoda road near Ombi for the full period of our stay, receiving
$6.42 a fortnight. The need for cash to pay the Council tax and
[465] the Mission jubilee contribution led five others to work on road
maintenance during the final week of our stay. Although working
a thirty to forty hour week, the five longer term roadworkers have
planted an average of 410 rubber seedlings each which is greater
than the average of 346 seedlings for all Ombi-Tara blockholders.

657 423 476 The five work on their blocks in the later afternoons and on week-ends and their kinsmen help to clear their blocks while they are absent on road maintenance work.

Some future problems

657 423 177 While the long-run consequences of current alterations in land tenure are always difficult to foresee, some indications of future difficulties at Ombi-Tara may be seen.

Rights to land. Although all individual land rights which existed before conversion in the 800 converted acres have been legally abolished, and all land outside the blocks is held communally,[1] this appears to have been understood and accepted by only a small minority. Each person interviewed was asked if he has any land apart from his block. Thirty-three of the Ombi-Tara people answered in the affirmative, and three more said that although they themselves do not have any land outside the converted area, other people do. Only four people said that they have no land outside the converted area, as all individual rights existing prior to conversion have been abolished and the land outside the blocks is held communally. These four include Charles, one of the clan leaders, and two men who are living on their blocks. There is a wide divergence between the few people who accept the new system of holding clan land worked out with the Agricultural Officer in late 1963 and early 1964, and the many who do not appear to fully [614] understand or accept it. The majority appear to consider that clan land outside the converted area is held under customary tenure, which includes differential individual rights.

The situation is further complicated by the presumptive right of each person to extend his holding by clearing the bush behind his block without consulting the clan leader or other member of the clan. (This right is recognised by the villagers but is not valid in law.)

Several people indicated that they considered they owned the land behind their blocks in the same way as they owned the block, with the difference that the land behind the block had not yet been surveyed. This presumptive right appears likely to cause conflict whether the land outside the converted area is held under customary or communal tenure. It remains to be seen whether all previously existing rights to land will in fact be given up by the villagers, and if this does not occur, what sort of solution will eventually emerge.

At least three of the men absent from Ombi-Tara in outside wage employment have not been contacted since tenure conversion was

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[1] See p.14.[A]

A [See Category 423--Analyst]

657 423 177 initiated and hence are not party to the agreement to set aside 800 acres for individual holdings. Problems could arise if, on returning home and finding all forty blocks occupied, they should refuse to accede to the new arrangements. It also remains to be seen whether the man of Mumu clan whose block is on Kuei land will be permitted to extend his holding beyond the present twenty acres. The leader of the Kuei clan suggested to us that this would be allowed.

Concepts of title. While everybody interviewed said that the blocks belong solely to individual blockholders it remains to be seen whether in future all people will be prepared to cede to the blockholders all rights which they previously held in the converted area.

There was considerable confusion concerning the exact time that the blocks became the property of individual holders. Most people considered that this occurred immediately after the application forms had been signed, while some thought it was as soon as survey had been completed and others thought it was after the blocks had been distributed. Nobody realised that the block did not legally become his until ninety days after the Land Titles Commission hearing.

No one understood the purpose of the Land Titles Commission hearing. A genealogy was prepared in the hope that this might be required by the Land Titles Commissioner. At the hearing, the Commissioner read out the names of the thirty-five applicants and asked each applicant to call out the number of his block. The Commissioner explained that he would send a list of the applicants' names to Port Moresby and after ninety days each man would get a pas[1] - the title document - saying the land was his.

After the hearing the Ombi-Tara people indicated in conversation that they thought the Commissioner had come to check that each man knew the number of his own block. They considered that the piece of paper which they would get merely confirmed that each man held his own block as he had done for the past seventeen months. This lack of understanding by the villagers of the true function of the Land Titles Commission hearing could be significant if objections to conversion were raised at the hearing.

657 423 425 Development of a market in land. The Administration hopes, by converting land from customary tenure to holding under individual registered title, to facilitate the development of a market in land. This is essential to ensure that no person with agricultural ability and initiative is deprived of land. It has been pointed out by

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[1] A neo-Melanesian word meaning 'letter'.

657 423 425 Lord Hailey (1957:802) in Africa that people showed great reluctance to face commercialisation of land rights, by sale, mortgage or lease. I cannot say how far conversion will contribute to the development of a market in land as it is not clear whether the Ombi-Tara people understand that in law each man may sell his block to anyone he wishes. An attempt was made to gauge this with three questions.

> If any man from Ombi wanted to sell his land and go and live in Port Moresby, is he allowed to do that?
>
> Would he have to discuss it with somebody first?
>
> What if the clan leader said 'no': could he still sell it?

Five people, including Charles and the two clan leaders, replied that individuals could dispose of their blocks without consulting anyone, even if the clan leader opposed the sale. Ten more said that a man was allowed to sell his land but would have to discuss it first, and could not sell if the clan leader was in opposition. The remaining twenty-five said they could not sell or did not know whether or not they could sell. A common reply was that no one wanted to go and live in Port Moresby but that if anyone did go he would leave the land in the care of his son or some other kinsman.

657 423 Cash crops planted before conversion. There are a number of cases at Ombi-Tara where cash crops planted by one man before conversion are now situated on another man's block. The usual solution to this problem has been for the planter (or in the event of his death, his heir) to retain sole rights to the crop. When the trees die out the land will revert to the blockholder, and the planter may not plant more trees on the same land.[1]

There have, however, been some variations from this solution. Where the crop concerned was cocoa the planter has in many cases abandoned it, allowing the blockholder to clear it and plant rubber. In one case sole rights to the cocoa will be retained by the planter until the rubber begins to yield a return in about seven years, when rights to the cocoa will be ceded to the blockholder. In another case the cocoa is jointly harvested with planter and blockholder sharing the income received from the sale of beans. Each of these solutions was worked out by negotiation between the persons concerned, and appears to have been determined largely by considerations of kinship and mutual obligation.

The existing situation contains potential difficulties. The blockholder, or his heir, may decide that he needs the land on

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[1] This seems to follow traditional Orokaiva practice, as described by Dakeyne (1965:61): '...the right to harvest the produce of a permanent tree is vested in the planter or his heir, irrespective of the rights to the land on which the tree is planted.'

657 423 which the planter's crops are standing and may wish to cut down the trees. Where the planter's crop is coffee, the trees may reseed so that the grove may not die out, and the planter may retain a semi-permanent right to portion of the blockholder's land. If the coffee does die out, the planter may still be able to make out a case that he has a continuing right in the land, claiming that when individual title was granted in 1966 the blockholder recognised his right to use part of the block for coffee growing. Similar problems may arise where one man has built his house on another man's block. Eight of the nine houses of Tara village, and two of the houses in the hamlet located forty-five minutes' walk from Ombi are situated on blocks belonging to persons other than the householder.

Multiplicity of rightholders. While it is theoretically possible to provide against more than one person holding rights to converted land by appropriate legislation, there is no simple way of preventing de facto multiple rightholding since no law can prevent the villager from meeting his moral obligations to his relatives. It would not be unique to Papua-New Guinea if multiple rights to land should exist despite legislation forbidding them.[1] In Tahiti, land rights are still passed on to illegitimate children although this is against the introduced law. Land fragmentation in Tahiti after the legislation to individualise tenure is worse than it was previously (Panoff 1964:136-9). In the Cook Islands the attempt to individualise tenure was followed paradoxically by a significant increase in the number of rightholders per acre of land (Crocombe 1964b:127).

We saw earlier that most Ombi-Tara people wish to continue their traditional pattern of inheriting rights to land and that there are signs that traditional obligation patterns may be continuing. The effect of these factors on the number of rightholders per block, and therefore on the achievement or otherwise of the policy of individualising tenure, may be significant in future.

Planting before title is granted. Planting of rubber on the blocks at Ombi-Tara began in September 1964, twenty months before title was due to be granted. Planting of rubber is continuing on the four demarcated and three undemarcated blocks which have not yet been formally allocated.[2] Planting before title is granted is

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[1] The existence of multiple rights and the spreading of an individual's usufructuary rights over several pieces of land may, if land is of uneven quality, equalise people's shares in the agricultural potential of an area. Consolidation of holdings in such areas tends to have the reverse effect.

[2] Two of the undemarcated blocks are situated immediately behind demarcated blocks (see the conversion plan).[A] This may cause difficulties if the holders of the demarcated blocks exercise their

A [See Category 102, p. 12--Analyst]

657 ●423 also likely to occur if any of the blockholders decides to extend his holding beyond the present boundaries.

[249] More than 13,000 rubber trees were planted before the Land Titles Commission hearing took place. Although this caused no difficulty at Ombi-Tara, a similar occurrence at other schemes could have serious repercussions if a dispute should arise at the hearing, or if an appeal should be lodged afterwards. At the Yega scheme the villagers agreed to give a block to the Papuan Assistant Agricultural Officer who had helped them with subdivision and planting of cash crops. On the day of the Land Titles Commission hearing they withdrew this offer. A similar offer was made to the Papuan Agricultural Assistant at Ombi. By the day of the Land Titles Commission hearing he had planted more than 700 rubber seedlings on his block. Awkward consequences would have ensued if the people had decided to withdraw their offer at the hearing. The possibility of quicker registration, perhaps by the Local Government Councils, may be worth examining.

121 Pest infestations and declining soil fertility. If the introduction of individual farming on consolidated blocks leads to the cessation of the bush fallowing system of agricultural production there will be pest problems. Otherwise the holdings would have to be larger than the amount of arable land available in most areas. It was noted earlier[1] that the bush fallowing system is well suited to the production of annual food crops in tropical areas. Newton (1960:85), writing about New Britain, concluded: 'The concentration of food crops into an area cleared from rain forest has resulted in a fairly rapid multiplication of diseases and pests of colocasia, sweet potato, peanuts and sorghum.' Without fertilisers and advanced agricultural techniques soil fertility may decline in areas where there is continuous cultivation of food crops.

[452] Credit. The government decided not to offer credit facilities to participants in land tenure conversion schemes in order to prevent people assuming that tenure conversion was associated with financial assistance, but the District Commissioner of the Northern District has said that contrary to his expectations only two applicants for conversion have asked for financial assistance. One was extremely tentative and the other sought a loan of perhaps $25 (Williams 1966:7).

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2 (continued)
presumptive right to extend their holdings. We were told that in each case the two persons involved had negotiated a solution to this problem.

[1] See p. 6.^A

A [See Category 241--Analyst]

121 452 The need for credit at Ombi-Tara where rubber is being planted may be less than at schemes where other crops are being promoted.[1] Bauer (1948:318) stated that where tapping and processing of rubber is done by family labour, 'many small-holders could almost be referred to as no-cost rather than low-cost producers'. The visiting World Bank mission suggested that credit could play an important part in securing local interest in planting rubber in consolidated areas, in organising group processing and marketing, and in providing scope for enterprising men to increase production (International Bank for Reconstruction and Development 1965:111).

It has been suggested both by the District Commissioner (Williams 1966:7) and by a former Agricultural Officer in the Northern District (Cheetham 1962:67-78) that it may be an appropriate time to reassess official credit policy, looking particularly at the criteria for providing credit to smallholders. Cheetham (1962:77) concluded: 'A farmer's ability to repay may be a better criterion on which to provide loan capital than the present notion of "credit-worthiness" in the sense of adequate tangible farm assets.'

Cash cropping and productivity

657 423 182 [311] It is too soon to determine the effects tenure conversion will have on cash cropping and productivity. However, even at this early stage a few observations may be made. The acreage under cash crops at Ombi-Tara has increased significantly since conversion. Before conversion was introduced, 167 cocoa trees, 92 coffee trees and 19 bush rubber trees were planted per adult male at Ombi-Tara.[2] In the fourteen months after the villagers began planting high yielding rubber on the converted blocks an average of 304 seedlings was planted per adult male.

[434] There is no shortage of food or suitable agricultural land. Both
terrain and climate are favourable for growing rubber. There is easy
[464] access to Ombi-Tara from Popondetta. Villagers are able to earn money
to buy rubber seedlings from the Department of Agriculture by tapping
their bush rubber, by working on road maintenance, or by working for
wages on the Sangara ex-servicemen's plantations. The proximity of
the Sangara plantations and the existence of bush rubber stands at
Ombi-Tara provided villagers with experience in tapping and handling
[177] rubber. The Sangara plantations also serve to demonstrate a 'European
way of life' which many villagers find attractive and wish to emulate.

[241] Tenure conversion appears to have contributed to the improved cash cropping performance mainly by reducing the labour inputs required to establish cash-crop gardens, thus increasing labour

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[1] For example, the processing of green leaf into tea requires substantial investment (Clayton 1961:623).

[2] Excluding the two 'outside' blockholders and a man from Tara who declined to be interviewed (see p.1).

657 productivity. Consolidation of an individual's scattered plots
423 reduces the amount of time devoted to travelling and increases the
182 acreage which can be planted with cash crops in any one location.
The road running through the converted area allows easy access to
241 all holdings and facilitates interpersonal co-operation by reducing
the amount of travelling time involved.

657 Consolidation has facilitated the provision of assistance by
423 Department of Agriculture staff, increasing the effectiveness of
182 officers. Planting, pest control and general crop maintenance can
be more efficiently supervised where there is easy access to all
242 holdings.

Increased assistance from the Department of Agriculture has been an extremely significant factor in the increase in cash cropping activity at Ombi-Tara. In the Northern District there are more agricultural extension officers per head of local population than in most areas in Papua-New Guinea.[1] The diligence, patience, and understanding of the Agricultural Officer who initiated the conversion scheme, the stationing of an Agricultural Assistant full time at Ombi-Tara to supervise the rubber nursery and the bush rubber processing unit, and the regular visits of extension officers from Popondetta have helped to provide the essential technical and managerial skills which are lacking in the village situation.

657 Tenure conversion appears likely to enable economies of scale
423 when the rubber trees come into production, hence increasing the
productivity of village labour. Economies may be gained in pro-
182 cessing the latex, since the relatively large output may warrant
433 the introduction of larger and more efficient processing equipment;
in transporting the processed rubber in bulk; and in marketing.
One of the problems previously faced by Ombi-Tara cocoa producers,
especially when prices were low, was that buyers did not consider
it worthwhile to make the journey to Ombi-Tara from Popondetta for
the relatively small amount of produce.[2]

While conversion introduces economies of large scale production it also retains one of the better features of the small holding system, the maintenance of individual incentives to increase production.

Ombi-Tara experience appears to support the well-known maxim of the Food and Agriculture Organization that tenure reform, in order

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[1] The principle of concentration of development effort was endorsed by the visiting World Bank mission (International Bank for Reconstruction and Development 1965:35).

[2] The argument for increasing returns to labour in an economy moving from pure subsistence to the production of a market surplus has been stated by Fisk 1964:164.

657 to be effective, must be associated with improvements in technical
423 skills and the provision of credit, transport and marketing facili-
182 ties. That individualisation of tenure does not necessarily lead
to improvements in productivity has been demonstrated in many areas
433 including South Africa (Yudelman 1965:239), Ongoho in the Northern
District of Papua (Crocombe 1964a:36), and the Cook Islands, where
Crocombe (1964b:142) concluded that

> the issue of registered freehold titles by the Land Court of itself made little if any contribution to output in the early decades of the century and of recent years has had a negative effect.... Security of tenure must also be complemented by other measures if major increases in productivity are to result.

Tenure conversion at Ombi-Tara has enabled labour inputs in the establishment and maintenance of the rubber plantations to be reduced and appears likely to lead to economies of scale when the trees come into production. Conversion has facilitated, and has been complemented by, increased agricultural assistance. These factors together have contributed to the increase in cash cropping activity and improved labour productivity at Ombi-Tara.

Chapter 5

Summary and conclusions

657 423 Current Administration land policy aims at the introduction throughout Papua-New Guinea of a single system of land holding under secure individual registered title, and the promotion of indigenous agricultural development.

Land tenure conversion has been confined to the Northern District of Papua where it is at present costing the Administration about $116 per block or $6 per acre. This estimate includes the cost of providing salaries, staff housing, stationery, and office facilities, and excludes provision of planting materials, field equipment and extension services. There appears to be some scope for simplifying and reducing the costs of tenure conversion. The costs of tenure conversion should be compared with the costs of other methods of promoting indigenous agricultural development, for example land resettlement schemes, in order to determine which methods are most economical of public funds.

To what extent are the two aims of the tenure conversion legislation being achieved at the Ombi-Tara conversion scheme?

Individualisation of tenure

[178] Land rights at Ombi-Tara were traditionally held both by individuals and by groups. There are several indications that the de facto tenure system introduced since tenure conversion may be little different in some important respects from traditional tenure arrangements.

[428] (i) The Ombi-Tara people intend to continue traditional inheritance patterns (with some modifications) in future, and this may lead, as it has in other Pacific countries, to several persons holding de facto rights in a block of land which is considered in law to belong to a single individual.

[476] (ii) It appears unlikely that traditional Ombi-Tara obligation patterns will be broken down by tenure conversion since the obligation system provides the main means of social security for the villager.

657 423 (iii) As was the case before conversion, a man whose crops stand on another man's land retains his rights to those crops (in the local view, but not in law).

[425] (iv) As was the case before conversion, each man is considered by the villagers (but not in law) to have the right to extend his planting behind his present holding without consulting the clan leader or other members of the clan.

(v) It remains to be seen whether all villagers fully understand that all previously existing rights to land have been abolished since conversion, and whether in future some people may make claims on the basis of such rights.

[361] [178] (vi) Residence patterns appear also to be in accordance with traditional custom as those people who have left the village are living in hamlets composed of kinship groups and not as single farmers each on his own block.

Promotion of agricultural development

657 423 182 433 Even if tenure conversion alters the tenure system less radically than expected, it is still possible that it may act as a stimulus to indigenous agricultural development. The acreage under cash crops and labour productivity has increased at Ombi-Tara since tenure conversion was introduced. The improvement seems to be due more to the benefits arising from the consolidation of fragmented holdings than to increased security of tenure since the land rights that Ombi-Tara people held before conversion were sufficiently secure to allow them to plant cash crops.

Consolidation of holdings has reduced the labour inputs required to establish cash crop gardens by reducing the time spent travelling between the village and food and cash crop plots. Whereas previously each man had relatively small areas of land on each plot, making extension of plantings difficult, all his land has now been brought together on one twenty acre block. The provision of easy access to all blocks has facilitated interpersonal co-operation particularly in clearing bush lands, and has enabled officers of the Department of Agriculture to supervise planting, pest control and general crop maintenance more efficiently. This increased assistance from the Department of Agriculture has played an important role in increasing the acreage under cash crops by providing essential technical and managerial skills. It is questionable whether conversion would have led to a greatly improved cash cropping performance if it were not accompanied by increased agricultural assistance.

Tenure conversion appears likely to enable economies of scale to be gained in processing, transporting and marketing of produce when the Ombi-Tara rubber trees come into production, thereby increasing labour productivity still further.

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I am unable to determine how far tenure conversion will facilitate the development of a market in land.

Several problems apart from those considered under the individualisation of tenure may arise from tenure conversion as it operates at present. The villager's concept of individual registered title appears to differ from that of the framers of the tenure conversion legislation. There may be future disputes over rights to cash crops planted before conversion now situated on the block of a man other than the planter. Because of the long delays required by the conversion legislation, planting of cash crops has preceded the granting of individual title by up to twenty months, which could be significant if objections to conversion were raised at the Land Titles Commission hearing. The consolidation of holdings implies the cessation of the traditional bush fallowing system of cultivating food crops, which may lead to problems of pest infestation and declining soil fertility. A lack of credit facilities could hamper efforts to increase cash cropping at some tenure conversion schemes, particularly those requiring large capital outlays for processing, transport and marketing. This is not, however, a current problem at Ombi-Tara.

The Ombi-Tara people regard conversion, which they perceive as consolidation, as the road to improved standards of living. While this faith is retained there seems every chance that conversion will succeed in raising agricultural output. Continued faith will probably depend on the extent to which the expected improvements in terms of living standards and income are in fact achieved.

Appendix A

Process and costs of tenure conversion in the Northern District

121 This Appendix attempts to estimate roughly the economic costs of tenure conversion. Land tenure conversion can only be justified if the economic and social benefits to be derived from it exceed the economic and social costs of its execution. Information is not available to allow comparison of costs and benefits from alternative methods of promoting agricultural development.

Procedure

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423 The procedures to be followed in converting land held under customary tenure to individual registered title are set out in the Land (Tenure Conversion) Ordinance 1963 and the Land Titles Commission Ordinance 1962. The country is divided into a number of 'adjudication areas' and within each a 'demarcation committee' (with a majority of indigenous members) is established to prepare demarcation plans marking the boundaries of all native held land within the area. If a group is acknowledged as the undisputed holder of an area of land, members of the group may apply to hold portions of the land under individual registered title.

The Land Titles Commissioner prepares a conversion plan and publishes notice that the application will be dealt with after three months, during which time objections may be lodged. If he is satisfied that all persons with rights in the land agree to the application and that adequate compensation is provided for interests abolished or reduced by conversion, the Commissioner issues a conversion order. Ninety days is allowed for appeal and thereafter the conversion order is sent to the Registrar who registers the applicant as the owner of an estate in fee simple. Upon registration of individual title the land ceases to be subject to native custom and all previously existing rights are abolished.

The procedure followed in the Northern District differed from that laid down in the Ordinance in that conversion began there over a year before adjudication areas were mapped out (in January 1966) and no compensation was paid to persons losing rights to land - nor has any been requested by villagers.

657 423 The procedures which operated from the introduction of tenure conversion in the Northern District are summarised in Appendix B. Procedure was altered by Circular 31.1.9 from the Administrator to all field officers, dated 3 November 1965. Since all tenure conversions up to 1 January 1966 were carried out under the old procedure this has been used as the basis for the following cost estimates.

Method of estimating costs

[128] An attempt was made to gather information on eight conversion schemes in order to estimate the costs of tenure conversion in the Northern District. The stage of development reached at these eight schemes by 9 February 1966 is set out in Table 1. All except the Dapari scheme were among the first ten conversion schemes promoted, and consequently are among the most advanced conversion projects in the country.

Table 1

The state of eight tenure conversion schemes at 9 February 1966

Name of scheme	Blocks	Acres	Crop	Stage of progress
Barisari No.1	55	1,680	coconuts	Hearing completed for 47 applicants on 29 Sept. 1965. Applications filed for other blocks.
New Warisota	32	640	cocoa	Hearing completed 14 Dec. 1965.
Ahora	36	720	cocoa	Hearing completed 28 Jan. 1966.
Ombi-Tara	40	800	rubber	Hearing for 35 applicants completed 9 Feb. 1966.
Somara	10	200	rubber	Awaiting conversion plans to accompany applications.
Barisari No.2	7	210	coconuts	Awaiting conversion plans to accompany applications.
Dobadura-Buna	63	1,260	coconuts	Awaiting applications.
Dapari	44	1,000	rubber	Land Titles Commission survey in progress.

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The costs in salaries of each stage in the conversion process were estimated separately. The number of days[1] spent by an officer on a particular task was converted into the number of days needed per thousand acres and per hundred blocks. Salaries assumed for costing purposes are set out in Table 2.

Although every effort was made to cross-check all information on costs, the figures represent an approximation only. Where possible Field Officer Journals were consulted to determine the number of days each officer spent at a particular scheme. Otherwise estimates were made from discussions with officers concerned. The number of vehicle days in each stage was estimated from the rest of the data.[2]

Salary costs of each stage of the conversion process

(i) Preliminary discussions. Officers of the Department of Agriculture, Stock and Fisheries (D.A.S.F.) or sometimes the Department of District Administration (D.D.A.) are approached by village people who request a tenure conversion scheme for their area. Discussions follow on the nature and implications of conversion. This involves two days each for an Agricultural Officer and his assistant. The number of days spent by officers does not vary with the size of the scheme.

(ii) D.A.S.F. investigation. Agricultural Officers investigate and submit a report on accessibility, names of neighbouring villages and schemes, topography, soil type, vegetation, people's attitude to conversion, crop recommendation and a recommendation concerning priority to be given to the scheme. Estimated time at Ombi-Tara was four days each for an Agricultural Officer and assistant.

(iii) District Development Committee meeting. The D.A.S.F. report goes before an informal meeting of the District Development Committee which allocates priorities for further investigation. Tenure conversion is only one of the committee's many spheres of

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[1] Based on 219 working days a year for expatriate officers, being 365 days less forty-five days leave (overseas officers are entitled to three months leave after twenty-one months' service), less ninety-one Saturdays and Sundays, less ten statutory holidays. Local officers receive three weeks annual leave and hence have 236 working days.

[2] 'Vehicle' is used in this appendix to include vehicle and driver unless otherwise stated. A full day for vehicle and driver was assumed if the officer requisitioning the vehicle spent the whole day at a scheme and returned the same evening. A half day was assumed if the officer was left at the scheme and the vehicle returned to Popondetta.

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Table 2

Salaries (and allowances) assumed for costing purposes*
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	Annual salary	Salary assumed	Allowances added**	Total	Cost of one man-day
Land Titles Commissioner	6,050	6,050	818 +360***	7,228	33.0
Field Officer - L.T.C.	2,084- 2,588	2,336	818	3,154	14.40
Field Assistant - L.T.C.	440- 760	600	-	600	2.54
Agricultural Officer, grade 1	2,106- 3,814	2,960	818	3,778	17.25
Asst. Agric. Officer	720- 1,000	860	-	860	3.64
Agric. Assistant	440- 760	600	-	600	2.54
Farmer Trainee	172	172 (incl. rations $133)	-	172	0.73
Asst. District Officer, grade 1	4,058- 4,324	4,196	818	5,014	22.89
Interpreter - Dept of District Admin.	440- 760	600	-	600	2.54
Clerical Assistant	440- 760	600	-	600	2.54
Draftsman, grade 2	3,814- 4,058	3,936	818	4,754	21.71
Clerk	2,838- 3,326	3,082	818	3,900	17.81
Driver	440- 760	600	-	600	2.54
Vehicle	($0.70 per hour = $5.60 per day)				
Camping allowance (per night in the field for all except Farmer Trainees)					
expatriate, single	1.05 per day				
expatriate, married	2.00 per day				
local, single	0.45 per day				
local, married	0.75 per day				

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* Salaries and allowances are as listed in the *Public Service (Salaries and Overtime) Determination* 1964 and the *Public Service (Overseas Officers' Allowances) Determination* 1964. Most second division salaries were increased by 1½ per cent during late 1965. These increases have not been taken into account. Vehicle costs are official estimates.

** Overseas officers receive an Overseas Allowance ranging from $500 to $960 per year depending on marital status and length of service, and a cost of living allowance of $370 per year. They are required to pay $52 per annum as contributions to the cost of child allowance payments. Therefore, assuming that the minimum Overseas Allowance is applicable, $818 per annum has been added to the basic salary ranges of overseas officers for costing purposes ($500 + $370 - $52). One man in five is assumed to be married. Hence an extra $360 per annum or $1.64 per man-day has been added when costing one-fifth of the man-days involved in conversion.

*** The Commissioner is assumed to be married.

interest and the time it spends on conversion has not been included in these cost estimates.

(iv) D.D.A. investigation. An officer investigates the ownership of the land to be converted. This involves walking around the boundaries of the land with representatives from the claimant clan or clans, and neighbouring clans. The investigator checks whether any persons are absent from the area to be converted and whether they are agreeable to conversion. He submits a written report. There was no D.D.A. investigation at Ahora, Barisari No.1 or New Warisota, all of which began before mid 1965 when the D.D.A. investigation was introduced. The figures for Dobadura-Buna were not available. The schemes at Ombi-Tara, Somara and Dapari were investigated jointly, and D.D.A. officers accompanied by Land Titles Commission surveyors spent two days there, but they spent five days at Barisari No.2.

(v) Survey. If D.D.A. findings are satisfactory, Land Titles Commission staff make a chain and compass survey of the scheme to a design approved by D.A.S.F. Block boundaries are cut with the help of D.A.S.F. staff and local villagers and corners are marked with cement and wooden pegs. A plan is prepared from this survey and reduced size duplicate copies are made.[1] Time involved in surveying includes that spent on preliminary discussions, preparations, obtaining supplies, travelling, surveying in the field, and plotting and mapping. The most reliable information is for Ombi-Tara and Somara. The estimates for most of the others are almost certainly an understatement. The relatively large differences in time involved at different schemes (Table 3) reflect partly differences in topography and density of vegetation.

During the twelve months to 5 October 1965 nine schemes totalling 294 blocks and 6,650 acres were surveyed. Excluding work other than conversion, a total of seventeen Field Officer months was worked in the period, giving on the average 17.3 blocks surveyed per Field Officer month. Two Field Assistants were employed throughout. Since requests for tenure conversion were being received at a rate of more than one hundred per month during 1965, a large backlog remained.

(vi) Completing applications. An Agricultural Officer obtains five copies of each of the Application for Registration, the conversion plan, and the statutory declaration by the Land Titles Commission surveyor, and assists the village people to complete their application forms. This is time-consuming as repeated visits are often required to locate people who were absent at the time of the first visit. This involves an estimated four days per thousand acres for an Agricultural Officer and nine for his assistant.

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[1] The Ombi-Tara conversion plan is reproduced on p.12.[A]

A [See Category 102--Analyst]

Table 3

Survey - man-days per 1,000 acres

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1. **Salary and allowances**

Scheme	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	Veh.
Barisari No.1	45	79	32	45	-	90	5
New Warisota	26	18	3	-	30	-	14
Ahora	27	27	3	27	27	-	11
Ombi-Tara	94	94	33	43	352	525	12
Somara	110	110	10	-	585	440	65
Barisari No.2	72	72	-	72	-	144	24
Total	374	400	81	187	994	1,199	131
Average	62	67	14	31	166	200	22

2. **Camping**

Scheme	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	Veh.
Barisari No.1	40	74	28	40	-	-	-
New Warisota	18	10	-	-	26	-	-
Ahora	21	21	-	21	22	-	-
Ombi-Tara	87	87	26	39	225	-	-
Somara	60	60	-	-	320	-	-
Barisari No.2	48	48	-	48	-	-	-
Total	274	300	54	148	593	-	-
Average	46	50	9	25	99	-	-

Abbreviations:

F.O.	Field Officer, Land Titles Commission
F.A.	Field Assistant, Land Titles Commission
A.O.	Agricultural Officer
A.A.O.	Assistant Agricultural Officer
A.A.	Agricultural Assistant
F.T.	Farmer Trainee
Veh.	Vehicle

(vii) Processing applications. An Agricultural Officer spends about two days per 1,000 acres checking, amending and correcting all applications.

(viii) Registering applications. The applications are registered in the office of the Deputy District Commissioner by a Clerical Assistant who spends about one day per 1,000 acres.

(ix) Drafting notices of hearing. The applications are forwarded to the Land Titles Commissioner who makes out notices of the Land

657 Titles Commission hearing. This occupies the Commissioner for one
423 day.

(x) Conducting hearing. After at least three months the Land Titles Commission hearing is conducted. This is usually accomplished in one day's work each for the Commissioner, a Field Officer and a Field Assistant.

(xi) Drafting conversion orders. Conversion orders are completed by the Land Titles Commissioner and if no objections are lodged within ninety days they are sent to the Registrar of Titles in Port Moresby. This takes the Commissioner about one day per 1,000 acres.

(xii) Drafting and registering titles. The applicant is registered as the owner of an estate in fee simple by the Registrar of Titles in Port Moresby. Three copies of each individual title are drawn up by hand by a draftsman in the Registrar-General's Branch, Department of Law. No individual title documents had been drawn up by the end of February 1966 but it was assumed that a scheme of 1,000 acres containing fifty individual blocks would require about fifty days for a draftsman and a clerk.

(xiii) Programming and progress reports. At different stages of the conversion process an average of four days is spent by Agricultural Officers organising, planning, checking on conversion schemes and writing progress reports.

(xiv) Total salary costs. The costs in salaries of the thirteen stages of the conversion process are summarised in Table 4.

Other costs

The total costs of conversion must include capital costs which are even more difficult to estimate than the recurrent costs.

(i) Staff housing. Assuming 1,000 blocks of twenty acres are converted each year,[1] we can make an approximate estimate of the staff housing requirement of the tenure conversion programme.[2]

Table 5 sets out the number of man-days spent on converting 1,000 blocks by those officers for whom housing is provided.

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[1] This assumption was made in estimating the funds required for tenure conversion during the five year period 1966-67 to 1970-71 (Department of Agriculture 1965:1).

[2] It was assumed in the D.A.S.F. plan that housing would be provided for all officers engaged on conversion except Farmer Trainees, interpreters, and drivers; and that one officer in five would be married. These assumptions are followed here.

17: Morauta U-4,5 (1966) 1967 OJ23 Orokaiva OJ23 Ombi-Tara

Table 4

The process of tenure conversion - man-days per 1,000 acres and salary costs per 1,000 acres and per 100 blocks

Process	Man-days per 1,000 acres																				Cost per 1,000 acres $	Cost per 100 blocks $
														Camping								
	Com.	F.O.	F.A.	A.O.	A.A.O.	A.A.	F.T.	A.D.O.	Int.	C.A.	Dft.	Clk	Veh.	F.O.	F.A.	A.O.	A.A.O.	A.A.	A.D.O.	Int.		
Prelim. discussions	-	-	-	2	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	56	56
DASF investigation	-	-	-	6	-	6	-	-	-	-	-	-	1	-	-	3	-	3	-	-	95	195
DDA investigation	-	4	-	1	-	-	-	6	6	-	-	-	6	1	-	-	-	-	1	1	236	530
Survey	-	62	67	14	31	144	200	-	-	-	-	-	23	44	30	9	25	99	-	-	2,346	3,229
Complete applications	-	-	-	6	-	5	-	-	-	-	-	-	6	-	-	-	-	3	-	-	129	257
Process applications	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	71
Register applications	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3	3
Notices of hearing	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	33
Hearing	1	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	58	58
Conversion orders	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	23
Register titles	-	-	-	-	-	-	-	-	-	-	50	50	-	-	-	-	-	-	-	-	2,000	4,018
Programming	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	71
Total man-days	3	67	68	31	31	181	200	6	6	1	50	50	36	47	30	12	25	107	1	1		
Cost per 1,000 acres ($)	99	986	175	344	113	448	146	93	15	3	1,[illegible]	907	293	58	26	13	13	35	1	1	3,180	
Cost per 100 blocks ($)	99	2,230	399	1,037	293	902	315	209	43	3	2,300	1,816	437	131	60	33	33	107	2	1		10,332

Abbreviations:

Com.	Land Titles Commissioner
F.O.	Field Officer, Land Titles Commission
F.A.	Field Assistant, Land Titles Commission
A.O.	Agricultural Officer
A.A.O.	Assistant Agricultural Officer
A.A.	Agricultural Assistant
F.T.	Farmer Trainee
A.D.O.	Assistant District Officer
Int.	Interpreter
C.A.	Clerical Assistant
Dft.	Draftsman
Clk	Clerk
Veh.	Vehicle

Columns do not add to totals because of rounding

Cost per acre - $ 3.18

Cost per block - $103.32

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Table 5

Man-days per 1,000 acres and per 1,000 blocks for officers for whom housing is provided

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423

	Man-days per 1,000 acres	Man-days per 1,000 blocks
Overseas officers		
Land Titles Commissioner	3	60
Field Officer - L.T.C.	67	1,340
Agricultural Officer	31	620
Asst District Officer	4	80
Draftsman	50	1,000
Clerk	50	1,000
Total	205	4,100
Assistant Agricultural Officers	31	620
Other local officers		
Field Assistant - L.T.C.	68	1,360
Agricultural Assistant	181	3,620
Clerical Assistant	1	20
Total	250	5,000

Overseas officers would require 4,100 man-days on a year's programme of converting 1,000 blocks, and thus need housing for nineteen overseas officers (four married and fifteen single). Housing has also to be provided for three Assistant Agricultural Officers (one married, two single) who spend 620 man-days on converting 1,000 blocks and for twenty-one other local officers (four married, seventeen single) who spend 5,000 man-days.[1] The cost of providing housing for these officers is set out in Table 6. The annual cost of providing staff housing for a programme to convert 1,000 blocks averaging twenty acres in area is $9,030 which represents $0.45 per acre or $9 per block.

(ii) Office facilities. Proportionate costs of office space have been estimated at $0.05 per acre or $1.00 per block.

(iii) Stationery and materials. Each individual title document will require materials which are estimated by persons concerned with them to be worth $0.60.

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[1] Using days of work as set out in footnote 1, p.40.

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Table 6

Cost of providing staff housing for a one year programme to convert 1,000 blocks

	No. of officers required	Total cost* ($)	Cost of housing per year (1/15th capital cost)
Overseas officers			
single	15	75,000	5,000
married	4	40,000	2,666
Assistant Agricultural Officers			
single	2	4,000	266
married	1	4,000	266
Other local officers			
single	17	8,500	566
married	4	4,000	266
Total	43	135,500	9,030

* Based on Department of Agriculture 1965:3.

The costs of field equipment (e.g. compasses, cement pegs, etc.), agricultural extension work, the provision of planting materials,[1] transport and marketing facilities have not been included in this cost estimate as they are not part of the immediate process of tenure conversion. They are, however, essential to the success of any conversion scheme and may add significantly to the overall costs of the conversion programme.

Total costs

Insufficient data were collected to enable an accurate estimate of the total costs of tenure conversion. The available information is summarised in Table 7.

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[1] D.A.S.F. estimates that the cost of planting materials over five years for 2,500 blocks on which rubber or coconuts are grown would be $233,200 or $93.28 per block. Farmers on the other 2,500 blocks could obtain cocoa and coffee planting materials locally at little or no cost.

Table 7

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423

The costs of tenure conversion per acre and per block

Item	Cost per acre $	Cost per block $
Salaries	5.10	105.50
Staff housing	0.45	9.00
Office facilities	0.05	1.00
Stationery and materials	0.03	0.60
Total	5.63	116.10

Note. Field equipment, extension services and planting materials have not been included.

It may be useful to spell out some of the implications of these estimates. In the twelve months to October 1965 work was commenced in the Northern District on converting 2,000 blocks (covering about 40,000 acres). The cost to the Administration when conversion of these blocks is complete (excluding the provision of planting materials, field equipment and extension services) will be about $232,200.

If the Administration were to extend tenure conversion to 5 per cent of indigenous heads of households in Papua-New Guinea each year (that is, to about 20,000 people, assuming one person in five is a householder) the cost (excluding the provision of field equipment, extension services and planting materials) would be about $2,322,000 per annum. There may be ways in which these costs could be reduced, but these fall outside the scope of the present paper.[1]

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[1] Discussion of such topics as degree of accuracy of survey, maximum use of indigenous staff, costs of registration procedure, and the possible delegation of certain functions to local officers and/or local governments, merit discussion. It may be that costs of future conversion could be significantly reduced. On the other hand, the changes in procedure introduced by Circular 31.1.9 from the Administrator, which had not been put into effect at the time of this study, appear likely to increase costs and slow down the conversion process. In particular, the reports from both the District Development Committee and the Department of Agriculture are to be sent to the Administrator's Headquarters Advisory Committee on Land Tenure Conversion.

241 year. Thus, over a ten-year land-rotation cycle,
242 approximately two and a half acres of land are
311 required to support one person.

The major change that has occurred in New
241. Guinea agriculture with the coming of white
433 men has been the introduction of cash crops.
When Europeans first arrived they found a
177 subsistence economy. Some trade was conduc-
[437] ted but it was almost entirely by barter and
was confined in the main to items of ceremonial value, shell and feather ornaments and the like. The early administrators, both British and German, were faced with the problem of rapidly easing the financial burdens their colonies imposed on the mother countries. The only readily apparent way to do this was to encourage the production and export of copra, the dehydrated meat of mature coconuts which grew prolifically in all coastal areas. Accordingly villagers were encouraged to produce and sell copra to itinerant traders; this village or 'trade' copra was the mainstay of the colonial economy for many years until production from large scale plantations was built up. First coconuts, then rubber, coffee, and cocoa and latterly tea and pyrethrum were grown on plantations owned and managed by white men who directed gangs of indigenous labourers in the tedious tasks of keeping the jungle at bay and processing the crops. Since 1950, Administration policy has changed in favour of encouraging the production of tree crops by indigenous growers on small plots of village land or, in certain areas, on small plantations of ten to forty acres. This policy has brought into sharp focus the difference between our land ownership system and that of the New Guineans.

423 Flying over New Guinea and looking down on vast areas of trees or grassland, with no apparent occupants apart from an occasional village, one may be tempted to think that there is a great deal of vacant or unclaimed land. This would be erroneous. Some indigene claims rights to every square foot of land under 7,000 feet and to much of the higher land as well; in many areas the rights claimed by one man are disputed by several others.

The European concept of individual land ownership must be discarded when considering New Guinea custom. Similarly the phrase

[P-2-A]

423 'communal ownership', which is sometimes applied to indigenous land tenure, is misleading and must be qualified. New Guinea land tenure may best be understood as a pattern of rights of usage. For example, a man who is the first to venture into a patch of rain forest and mark distinctive trees thereby acquires the right to hunt in that forest area; if he clears the forest he acquires the right to cultivate that land. [428] These rights are inherited by his descendents. Thus individual adults control the rights to hunt, forage or cultivate on all land, and, incidentally, to fish in the streams which traverse their land. But each individual [619] is also a member of a closely cohesive parish[1] group, to which he owes absolute loyalty. The parish group, through its sub-groups, clans, lineages, and individuals, controls a certain area of land. It was inconceivable in the traditional days of inter-parish warfare, that any land should be given or sold to the neighbouring enemies. Under traditional custom, no individual could sell freehold title to land; at most he could permit the temporary use of land by a stranger on the full understanding that he as a lender retained the permanent rights.

[578] New Guineans are just as conscious of their individual rights to the use of land as we are, and many disputes occur because of real or imagined infringements of a person's rights. Land boundaries in New Guinea are rarely marked by fences. More commonly they are indicated by distinctive trees, rocks, or very often by bright-leaved shrubs such as croton or cordyline. Land holders have what is, to us, an almost uncanny knowledge of the location of their boundaries. A villager can lead you unerringly through thick secondary growth to his boundary mark and can point out, for instance, the almost imperceptible rise in the level of the land marking the line of a pig-fence, now completely rotted away, which bounded his swidden several years earlier.

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[1] The term 'parish' may appear unusual in this context. It is used in the sense in which it has been adapted by Dr. H. I. Hogbin (1953) that is, the largest group of people forming a political unit. Hogbin denies the existence of tribes in New Guinea (with the possible exception of some of the large highland groups). He applies the term parish to numerically-small political groups.

[P 2-B]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

602 Kinship groups are of major importance in
the functioning of village society in New
[619] Guinea. Every individual is a member not
[614] only of a parish but also of groups of closer
kin, a clan, and maybe a lineage. Lacking any
[613] system of payment in cash for services rendered,
the villager obtains the assistance of his
602 relatives for heavy work such as the felling of
464 big trees to make a swidden, dragging a canoe
476 log to the beach, or making a long seine fishing
net. Obligations thus incurred are met
either by reciprocating when asked or by
602 making a gift. The kinship group provides
social stability and in practice the pattern of
311 land use is frequently decided by the senior
241 members of the group. The planting of food
crops by any member, even on land to which
he does not control cultivation rights, causes
no concern because rights to temporary usage
may be easily granted, but the planting of
tree crops, which may remain in the ground
from thirty to eighty years, is a different matter.
Planting tree crops is tantamount to
alienating the land for at least a generation
and very often some members, at least, of the
kinship group object to such long-term use.
Even if they do agree to an individual member
planting tree crops, there is almost always
the assumption that he must share any profit
he makes with other members of the group.
Individuals who have planted cash crops under
these conditions generally become discouraged
when they see the fruits of their labours being
reaped by kinsmen who contribute little or
nothing towards production.

657 In its attempts to stimulate production of
423 cash crops by indigenes, the Administration
177 has approved a series of land tenure laws, the
last and most radical of which was passed in
1964 providing for the registration by indigenes
of individual freehold title to land: a
measure designed eventually to establish a
European system of land tenure throughout
the Territory. In the meantime, such measures,
[578] by pitting traditionally conservative
people against the products of modern Western
education, are a cause of internal conflict
within indigenous society.

632 The establishment of towns, unknown before
177 the coming of Europeans, has forced an
even more drastic adaptation than have the

[P.3-A]

18: Dakeyne K-5 (1962-1964) 1969
OJ23 Orokaiva OJ23
Yega

614 No male member of a Yega clan has any rights
423 whatsoever to land outside the consolidated
block of parish territory. All Nasioi, on the
000 other hand, are members of widely dispersed
matrilineal clans. Many of them, both men
and women, have rights to cultivate land far
from their village of residence. For a Nasioi,
the focus of loyalty is not the clan as a whole
but the small segment of it with which he (or
she) is intimately associated, in the parish
where he lives.

177 The degree to which contact with Europeans
has affected each group differs greatly.
The Northern District of Papua where the
[245] Yega live is the scene of recent rapid development
in cocoa planting by both Europeans
on large plantations and by indigenes
241 on small-holdings. The Yega are a relatively
433 well-educated group of people but they have
a record of failure in the production of cash
[464] crops. Many of the younger Yega have therefore
left the parish territory to work for wages
in skilled and semi-skilled jobs in the towns.
000 Fewer Nasioi go to work in the towns but
many have worked locally as plantation
labourers. Recently copper has been discovered
within their territory and now many men work
for the mining company which offers higher

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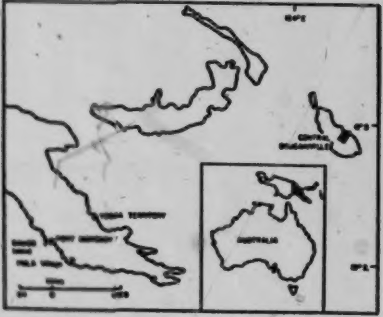

Fig. 1. Location of the three case studies

[P.4-A]

177 for short periods as indentured labourers on
464 the newly-established European plantations or
[466] on the wharves of Port Moresby or Samarai.
Most men sampled the novelty for a short time
but quickly returned to the village; some
showed little interest in the wider life introduced by the white men but a few were greatly influenced and spent years away from home in paid employment such as the Papuan Constabulary.

SOCIAL STRUCTURE

101 The Yega constitute a social and political unit
and regard themselves as separate and distinct
197 from the similar groups around them, even
619 though all speak mutually understandable
dialects of the same language. Each of these
619 groups may therefore be termed a parish.
Before the enforced abandonment of warfare early this century, these parishes lived in a situation of constant enmity and changing military alliances. In the absence of effective natural barriers on the plain, each group concentrated upon the production of its food supplies as close as possible to its home villages; tracts of forest which served as hunting areas and as reservoirs of wild food and building materials also served as 'no man's lands' surrounding the territory of each parish group.
As hunting rights to these forest areas were
[423] obtained by daring individuals who ventured
[578] far into them, near the swidden areas of neigh-
[657] bouring groups, it is not surprising that such
[692] [P.5-B]

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claims by two or more groups frequently overlapped (Fig. 2). Because of this situation,

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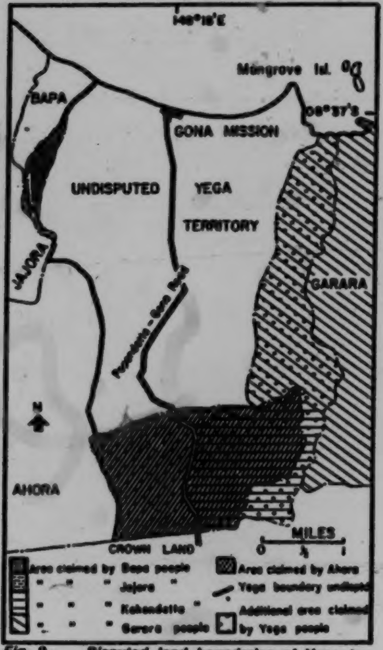
148°18'E
Mangrove Id.
08°37'S
BAPA
GONA MISSION
UNDISPUTED YEGA TERRITORY
JAJORA
Popondetta – Gona Road
GARARA
N
AHORA
CROWN LAND
MILES
0 ½ 1
Area claimed by Bapa people
" " " Jajora "
" " " Kokondetta "
" " " Garara people
Area claimed by Ahora
Yega boundary undisputed
Additional area claimed by Yega people

Fig. 2. *Disputed land boundaries of Yega territory. (Redrawn from an original map by the Land Titles Commissioner, Popondetta.)*

[P.6-A)

619
423 a Land Titles Commissioner today has the
578 difficult task of adjudicating the rival claims
692 of two or more groups to the same areas of
657 forest land; each group can, moreover, produce men who can point out the trees marked
by their ancestors and each group is convinced
that they alone are in the right and the others
merely conniving liars, who will use any
methods to steal the land. The intensity of
feeling which people generate over land became evident one day when I attended a
meeting called by the Land Titles Commissioner to discuss rights to a small area between
the Yega and a neighbouring parish. As my
Yega friends and I left at the conclusion of the
meeting we came on a group of Yega men in
the bush fifty yards from the meeting site;
they had prepared a supply of sharpened 8 foot
poles 'just in case', they said, 'the others started
a fight over the land!' Doubtless the other
side was similarly prepared.

614 The Yega parish is composed of eight named,
613 exogamous, localised clans most of which are
divided into sub-clans and lineages; descent is
[619] patrilineal. On marriage, a girl leaves her
father's house and goes to live in the house
591 provided by her husband; in past times the
couple invariably went to live in the same
178 village as the husband's father, but nowadays
the rules have been greatly relaxed. Each clan
614 has a different totemic emblem which serves
784 as a kind of trademark. If the totem is an
animal or edible plant it may not be eaten
for food.

614 An abbreviated table illustrating the Yega
social structure is given in Table 1.
613 [P.6-B]

LAND TENURE

614 Each clan controls some areas of mature rain
forest, some of secondary forest, and some of
423 grassland. Only the secondary forest is regarded
as valuable garden land. The mature
rain forest is potential garden land of the
future, and grassland is unimportant, except
for hunting. Clan land-holdings are fragmented
within the confines of Yega territory. This
pattern can be explained partly by the social
system of land use and partly by the history
of Yega expansion inland from the coast. The
613 members of different lineages belonging to the
same clan normally combine to clear areas of
476 rain forest by communal labour. When the
423 work is completed the land is divided among
the lineages which helped clear it. This is
614 the origin of the pattern of large continuous
strips of land belonging to one clan, but
423 sub-divided amongst the sub-clans and lineages
[613] of that clan as shown in Fig. 3. The
commonly elongated shape of clan holdings is
the result of continuous clearing in one direction
by a group of kinsmen talking and joking
as they worked and thus keeping close together.
The small enclaves of land shown
614 within the general Kurou clan area but belonging
602 to other clans (Fig. 3) may be explained
by affinal relationships. At various
423 times the Kurou men cutting down the forest
gave permission to some men of other clans,
who had married Kurou women, to work with
them. These affinal kinsmen thus acquired
[428] cultivation rights to small pieces of land,
which have been inherited by their descendents.
The first areas cleared were close to
the coast; as population increased and more
land was required, the inland forests were
cut down in the manner described above.

241 Rights to cultivate land are controlled not
by the clans but by the lineages; in each line-
423 age the oldest member living in the parish
territory has the authority to say which land
613 shall be cleared for gardens and how the work
[614] is to be organized; fragmentation is thus reduced.
In practice, however, many lineages are
numerically small and the sub-clan head coordinates
the work of members of the lineages

[P.17-A]

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● 423
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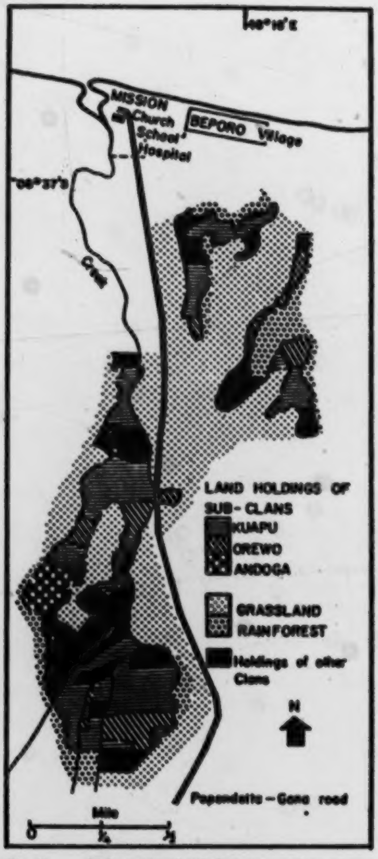
148°18'E
MISSION
Church
School
Hospital
BEPORO Village
08°37'S
Creek
LAND HOLDINGS OF SUB-CLANS
KUAPU
OREWO
ANDOGA
GRASSLAND
RAINFOREST
Holdings of other Clans
N
Popondetta—Gona road
Mile
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Fig. 3. Main areas of subsistence gardens of one Yega clan (Kurou clan)

241 within his sub-clan so that all sub-clan mem-
423 bers may be found working land in close
613 proximity. This custom was necessary in the
past for mutual protection against raiders. It

[P 7-B)

[TEXT CONTINUED ON PAGE 8-B]

241 is maintained today because, the Yega say,
423 it makes the work lighter if you have someone
613 to gossip with, and to share a watermelon or
a smoke during rest breaks. The effect is that,
at any one time, many people of a sub-clan
are using land to which they do not hold cultivation
rights.

241 The granting of temporary rights to plant
423 a food crop is normal procedure. A right-holder
frequently grants such rights to affinal
[602] kin of a different clan or even to an affinal
[614] kinsman from a neighbouring parish. An outsider
granted such a right would *never* consider
[431] that he had any permanent right to Yega
land. He would simply give the right-holder a
[426] gift or, if asked, would lend land in return.

226 The Yega are coastal people and expert
fishermen. Fishing is an exclusively male
[462] occupation and fish have always been an
important food. Eleven reefs are known by
226 the Yega to exist off their strip of coast; rights
423 to fish over these reefs are held by the clans
whose ancestors first discovered them. Any
614 person who catches fish over a reef belonging
[431] to another clan must give a gift from his catch
to the right-holders. Fish are caught by many
different methods but the commonest nowadays
[177] is by skin-diving with a home-made spear
gun and goggles made in Hong Kong.

SUBSISTENCE GARDENING

241 The Yega gardening routine is similar to the general procedure described earlier. The main features are universal inter-planting of a wide range of food plants and a shifting-field system which provides a continuous supply of fresh vegetable food. Some special features of Yega agriculture are worth noting. These are:

a) *The shifting-field cycle.* The average
241 length of the fallow period for twenty-one
242 swiddens investigated was 7·4 years. Such a
figure is apt to be misleading. It tends to give the impression that New Guineans are much more organized than in fact they are. Some swiddens were fallowed for as little as two years . . . 'because my brother made his garden over there and I wanted to work near him!', while others had been left as long as thirteen years . . . 'because the soil isn't very good in this place.' Human factors as well as physical

[P.8-B]

245 By a fortuitous circumstance, the land selected
● 423 was regarded by all Yega as communal
hunting land. It had belonged in the past to
[614] the Bowori clan, but when they were wiped
out in inter-parish warfare it had never been
[726] re-allocated among the remaining clans. Nobody,
therefore, had to be compensated for
245 the loss. The Yega followed the DAO's advice
and over the next two years cut down a large
654 area of forest and planted shade trees and
657 young cocoa. In order to supervise this work,
the Agriculture Department built a small
village at Ononda to house a field instructor
and a group of trainees.

245 Many people came to believe that their
433 future prosperity lay in the development of
cash cropping. As the cocoa blocks were a long
361 walk (four miles) from their homes in Beporo
village, many decided to move inland; this
245 was a rational decision. An additional incentive
[484] was the development of the weekly market
at Popondetta. With the rapid growth of the
[443] town since 1960 there has been an increasing
361 demand for fresh fruit and vegetables. Many
Yega have taken advantage of this to sell surplus
443 produce for cash. Residence in the inland
438 settlements reduces the distance from the market.
By 1964, over half the population was
living in the new villages.

361 In addition to the dispersal of population,
the breakdown of traditional clan groupings
178 continued. The inland settlements are all
numerically smaller than Beporo and in all of
614 them the old homogeneity of clan membership
has disappeared. A man chose his house site
for convenience and access to his place of
work, rather than on the basis of his kinship
ties.

361 The most radical change occurred in the
establishment of Binjapada village. It is a
collection of fourteen households, spread for
over half a mile, along a narrow strip of grassland.
361 Six of the occupants had been allocated
cocoa blocks in the near vicinity and four of
423 these men attempted to locate their houses on
the projected extensions of their cocoa blocks;
this represents the beginning of a dispersed
pattern of settlement foreign to the Yega tradition
of clan-based clusters of dwellings. As no
boundary surveys were carried out, one man
located his house on his neighbour's block.

[P. 15-B]

361 He has now cleared bush and planted gardens 423 all round and claims, by right of usage, a much larger area than was originally allocated to him. The establishment of freehold title must reinforce dispersal, so it is significant that in August 1964 seventeen Yega cocoa-block holders were among the first people in New Guinea to apply for freehold title. The parish elders did not oppose these applications.

245 Yega expectations in cocoa plantings as a source of cash income have not been fulfilled. 458 The trees began to bear in mid-1964, at a time when, unfortunately, the world market was [439] depressed. Growers received only three cents per pound for wet beans from a European-managed fermentary near Popondetta; by mid-1965 the price had fallen even lower, to two 245 cents per pound. The discouraging effect of such prices was reflected in the low production 433 of cocoa during the latter half of 1966, when forty-eight growers produced only 1,866 pounds of wet beans valued at $74.64, an average of under $2 per head. By January 1967, the well-cared for plantations of 1964 looked overgrown and neglected and it was obvious that apathy had replaced the early enthusiasm.

245 The Yega cocoa-growing scheme outlined above well illustrates the conflicting traditional 178 and modern socio-economic attitudes commonly found in New Guinea today. Traditional aspects are:

245 178 a) The use of communal labour to clear the rain forest and the subdivision of the area 423 among those who helped.

464 b) The absence of any documentary record of the transference of cultivation rights to [476] individuals.

c) The organization of group labour for certain tasks—individual right-holders to cocoa blocks were assisted by their kin in tasks such as cutting grass and opening the cocoa pods—and the subsequent obligation on the right-holder to repay such work by sharing his profits.

d) Personal control by each individual of the economic trees which he planted on his block.

245 Aspects which have little precedent in traditional custom but result rather from the 177 acceptance of new principles are:

a) The systematic layout of blocks.

[P.16-A]

245 177 b) The production of crops specifically for sale.

[654] [657] c) The acceptance by the indigenes of supervision and advice from European and indigenous members of the Agriculture Department: people with whom they had no kinship ties.

d) The location of houses on the blocks.

●[423] e) The registration, by some individuals, of freehold title.

245 It is unfortunate that the scheme which appeared so successful in its early stages should have failed largely because of circumstances outside of the people's control.

464 [434] [166] Many Yega have made no attempt to earn cash from commercial agriculture. From the time of earliest contact with Europeans some of them have left home to work for wages. At the present time, almost one third of them are absent working, studying, or as dependents. 464 178 Forty-four per cent of all Yega men are away working. Those who are married are accompanied in almost every instance by their wives and children. 592 166 This situation represents a marked change from the pre-1940 years when many Yega men worked as indentured or casual labourers and could not take their dependents with them. [466] Nowadays most Yega work in semi-skilled or skilled occupations in which family accommodation is often provided by employers. Even if accommodation is not supplied, the breadwinner's earnings are apparently adequate to provide living quarters for his wife and children; frequently town accommodation is of poor standard but evidently family life is preferred to separation.

871 178 The main factor in the marked improvement in skills is education. The educational opportunities which have been available to the Yega for nearly fifty years have been exceptionally favourable, when compared with those of most other New Guineans. [797] A mission school has operated in the area since 1909; since 1932 (except for war years) it has had at least one European teacher permanently on the staff. [464] This educational background has enabled the younger generation of Yega men to take advantage of opportunities for employment in posts of responsibility and higher income which have become available in increasing numbers during the post-war period.

[P.16-B]

621 main road, or even facing each other on opposite sides of it. Although this is clearly
the wish of the majority of the people, it does not suit all of them. There is some
361 talk that it increases the danger of sorcery, and certain individuals fear that it will
731 mean an increase in the burden of responsibility of the village maintenance type.
Thus some hamlets have not joined in the general move, and others have split on the
question. Another question that cannot be answered at the moment is, how far was
the earlier hamlet system a result of tendencies towards violence and strife in the
society, and to what extent will such tendencies be overcome or intensified by the
new arrangements?

It is of course one thing to say that a hamlet or village group has land in a new part of the country suitable for their migration, and quite another to say that each individual in the group will find such a move to be the best. Looking at the matter retrospectively, it is now possible to see that many of the answers given to administrative enquiries were framed to assure the authorities that all would be well if they left the refugee camps immediately; everything was subordinated to this end.

423 The inheritance of land is mainly patrilineal; but a man may work his wife's
land, and even, with the assent of her relatives, inherit a share in his mother's land.
613 This means that individual members of a clan, instead of inheriting land jointly
[428] from a common ancestor, often inherit and claim land in different parts of the country
through matrilineal or marital influences. A clan, however, lives together and its
members work land near their residence. Because of influences which lie outside
the direct patrilineal line, or because of fragmentation, the person who has senior
authority over this land may or may not be the genealogically senior member of
[559] the clan. At any rate, he is given a special title, *enda mamo*, or "father of the
land." If the clan finds it necessary to move its residence, it will also probably
move its land-use area. This involves a change in the balance of land authority
and the emergence possibly of a new *enda mamo*. This has in fact happened in several
of the new villages.

731 At the time of my visit to the area in April, it was confidently expected that
once the people started building homes on the new sites, all would be well. In fact
361 the situation is much more fluid and unsettled. The Putemo people, for instance,
who had moved to a site almost contiguous with the magnificent new village of
Sairope, had not yet settled questions of garden land. The village site was given
to them by the Sairope people, but this meant removing themselves several hours
away from the old garden lands, and they had not worked out to what extent they
could claim land closer to them. In many cases individuals, say of the Popota
hamlet, would agree to move with the hamlet. When they started building their
home or inspecting the ground the real consequences of the move came home to
them: it was not then merely an academic question. They considered alternative
sites—their own near other new villages, their wife's, and their mother's. Often
too the wife, on her return from Ilimo, would have something fresh to say about
choice of site. Moves and uncertainty were frequent and it may be months before
the final situation is satisfactorily sorted out. In such
ways, incidentally, it is probable that new clans are for

657 Sivepe, as it happens, was one of the villages in which the plan
361 was pioneered.

Finally, I should refer briefly to communications. One
[491] general effect of the eruption was a shifting of villages to the
side of jeep roads, as Belshaw also mentioned. The administration
favoured this trend which greatly facilitated patrolling the
villages. The Orokaiva always seem to have a liking for the
Australian-built roads; Monckton already refers to their fondness
for travelling over it and explains it gave a sense of security
against possible attack by hostile tribes. Though this can hardly
be the reason today, the liking remains. Over the last few years,
the roads have begun to yield economic and practical advantage:
trucks collecting coffee visit the villages and occasionally
people can pick up rides from passing vehicles. Speed of travel
is also improved for pedestrians. I shall discuss ideological
aspects of this [illegible]ing later.

872 The accessibility of facilities has also improved since
the eruption. Sivepe children now all go to the school at the
797 Sasembata mission station which teaches up to Standard 6. Inonda
children were first introduced to schooling after the eruption
when the Seva people joined them accompanied by a mission teacher.
[368] After this mission teacher retired, Inonda was dependent on a
school at Hohota. Only a few children went to this school because
it was six miles away, across a deep river, but today, after
the building of a new road and a bridge, and the latest shift of
Inonda village, this distance has been reduced to about three
miles and school attendance is regular.

The eruption changes the centre of gravity of the district.
368 The pre-eruption settlements of Higaturu and Sangara contained all
731 governmental and mission facilities, including the hospital and
the schooling past Standard 2. Sivepe's link with these facilities
was by a bush track running through Isivita. Today, Popondetta is
the centre, but the hospital is at Saiho, the senior college near
Agenahambo, the Local Government Council in the new Higaturu, near
[491] Agenahambo. Thus the main road to Popondetta, now greatly improved,
has become the main artery. Nonetheless, for those who have to
walk, the bush tracks from Sivepe to Saiho, Awala and Agenahambo
are still important thoroughfares used by many dozen people every
day.

Section 4: Resources

I have already referred to the main resource, owned by the
423 Orokaiva, which is their land. The Sivepe people own only about
311 480 acres, almost entirely gardening land, and very little of
their land is in virgin bush. This small area is useful for certain

311 products, such as slow-growing trees, which are used for house
posts, drums, and other artifacts. A great deal of Sivepe land
423 is in young bush but this is fallowed garden land. After eight
years or so, it grows sizeable trees, and sometimes it is fallowed
for much longer. In this bush, many trees may be found that have
actually been planted by man and are owned by individuals.
Prominent among these are breadfruit, various nut trees, fruit
trees and trees with other specific uses. Some of these are
224 deliberately planted in bush. People go to the bush to collect
these, to forage and to hunt. Although hunting expeditions do
[222] occur periodically, and cause much excitement, they yield very
little meat. Not only is the area too small to contain much game,
[136] but also it appears that very few birds and no game apart from
small marsupials are actually still left. The same is true for
[411] the rivers which contain very little fish. I could not help
wondering, in fact, whether the meat collected was an adequate
[262] return for the number of cartridges used to kill it. Hunting
expeditions occurred only when there was a feast, and when the
offering of fresh meat to guests was especially desirable.
(Tinned meat might be cheaper than the cartridges but much less
esteemed.)

311 In this respect, the situation was very different in Inonda
where only a fraction of the land was used for gardening so that
almost all of it was hunting land. Most of this was in kunai
grass, which was very often burnt over. The effect of these burnings
was very often that good garden land also fell a victim to fire,
224 valuable trees were destroyed and villages endangered. The yield
in meat was much higher, however, so that in Inonda, meat actually
223 became an economic resource: it was sold on the market and used
as gifts in return for feathers and other valuables. There are
more birds at Inonda than at Sivepe, more marsupials and also a
good chance of an occasional wild pig. Neither at Sivepe nor at
Inonda is there evidence today of the use of traditional hunting
techniques, though traditional fishing techniques have survived.
[411] The decline in game and fish population is ascribed to the intro-
duction of guns and snorkels which greatly increased yields for
[293] some years, but then led to a greater scarcity than had ever been
known in the past. Guns and snorkels were introduced shortly after
[199] the second world war.

There are two kinds of domestic livestock: pigs and fowls.
231 The number of pigs has, as I already pointed out, declined greatly
in both villages. It was impossible to know how many pigs were
owned by Sivepe people in 1966-67, because they disappeared as the
old village became deserted and were never seen at all in the new
village. Rimoldi reports 24 pigs owned by his sample of 50 Sivepe
people alone which suggests that even in 1963, when he stayed
there, the whole village must have owned at least 60. During my
period of study, only a few of them were killed, and only when

628 together, the church council, with representatives from all the
villages, deliberated together. This cooperation was a gradual
631 development occurring over the years under consideration; it will
731 be traced in detail in a later chapter. The setting up of wards
under the Higaturu Local Government Council led to further occasions
[794] for formal cooperation between villages belonging to the same ward.
It was characteristic of both the church and the government council
[797] organizations that they divided the Sasembata district into areas
with definite boundaries, each area comprising several villages.
The church recognized two such divisions, the government council
three. I have already emphasized that the idea of such boundaries
[182] was a novel one (see Map IX).[A] It is beginning to have two kinds
of effect: first, the strengthening of bonds between villages
within the same ward or the same section of a mission parish
(e.g., bonds between Sivepe and Isoge, which up to now have not
been closely allied) and secondly, the loosening of bonds between
villages divided by the boundaries which are now being defined
(e.g., bonds between Sivepe and Kongohambo, hitherto closely allied,
but now separated by administrative procedures).

These generalizations will be documented below; my task at
628 present is to consider contacts between Sivepe and closely allied
423 villages arising out of the eruption and relocation. Here inter-
village cooperation was a far less significant factor than inter-
578 village competition, especially for use of the land. One of the
deep anxieties of the Orokaiva in the refugee camps and later in
resettlement villages such as Irihambo, Awala, Kongohambo was that
if the people did not return to their land, some others might
decide to occupy it and it might be impossible to dislodge them.
This was a very real danger because neither in 1951 nor at present
is there in existence a land register from which the ownership of
individual or village parcels may be unequivocally established.
The Orokaiva plant boundary trees round their blocks of land and
[685] there is a taboo on interfering with these. This is not merely a
supernatural taboo; interference with a boundary justifies a
killing. It is far less clear, however, just what rights a person
holds in a particular parcel. As this is a crucial issue in the
whole history of Orokaiva resettlement, I should explain this in
some detail.

Crocombe and Hogbin provide an excellent example of the
423 ambiguity of Orokaiva land rights. After wars with the Sangara,
613 both the Andiriha and the Tandai'undi clans were driven from their
villages and settled down together in a village named Sambogo.
[621] Later, some of the Andiriha set up Inonda on land to which the
Tandai'undi had superior rights. At present, this land is used by
Andiriha, and upon inquiring into the legal basis of tenure I was
given the following explanation. Two daughters of the Tandai'undi
owner's lineage married into Andiriha and were given the Inonda
[428] land to "look after." As is usual among Orokaiva, this right to

[A] [See Cat. 116, p. End Map 8--Analyst]

423 "look after" the land was passed on to the daughters' sons, who
613 now hold it. This arrangement is something like a perpetual,
inheritable usehold, but should the lineage of the useholders die
428 out, the land would revert to the Tandai'undi, as Crocombe and
Hogbin point out. Furthermore, should the present occupants decide
to settle elsewhere, the land would again revert to Tandai'undi.
They have residuary rights and, as Crocombe and Hogbin again point
out, they are not alone to have them, for another neighboring
group (the Urio people) likewise have residuary rights. In these
circumstances it is understandable that, for instance, the people
of Inonda would be most concerned if they were forced to settle,
even temporarily, away from their own lands.

We find the same pattern in Sivepe. First of all, the blocks
of land over which individuals had perpetual useholds contained,
in almost every case, some blocks which had not been inherited
through the patriline. Secondly, even those blocks which had been
so inherited were often held in common with others belonging to
a different village and nowadays counting themselves as belonging
to a different clan, even though agnatic links could sometimes be
731 traced. On the day of the eruption, or within the four days
following it, both Sivepe and the closely allied villages were
361 evacuated, and they were together at Ilimo. When the camp was
423 disbanded, a large resettlement village was established in Kongohambo,
on land belonging, at least in part, to Sivepe villagers of the
Seho clan. Almost 1,000 people were settled there so that garden
land in the vicinity of Kongohambo became very highly prized.
Meanwhile, the government desired to resettle the Sivepe people in
Awala. It seems that the Sivepe people did stay in Awala for
three months, after which the Jegase and Timumu clan groups
received permission to return to their land in Sivepe. The third
Sivepe clan group, Seho, stayed on in Awala, but planted gardens
in the Sivepe area.

At this point, the Seho people evidently felt reasonably
secure; a year later, however, they joined the other clans in
Pamba and together built the new village of Sivepe. When I asked
Seho informants why they had returned they told me it was because
of fear of losing their land. Now this danger did not come from
the other Sivepe clans, who were mostly affines of the Seho people
and whose return to their home village evidently caused no great
concern to the Seho people in 1951. The danger came from Kongohambo
which adjoined the Seho lands. Some Kongohambo people had residual
rights over some of this land; if the Seho people did not return,
they would undoubtedly have had some trouble in getting it back.

The government, though aware of this possibility, had
[657] imagined that Sivepe people would not be too concerned, seeing
that they had been offered garden land at Awala. Government reasoning
can be traced from the discussions by Belshaw and Keesing and also
from a long memorandum by Plant (see bibliography), a public servant

731 with some knowledge of anthropology. All these authors, following
F. E. Williams, had the impression that Orokaiva clans are corporate
361 groups and that the local clan groups are segments of these. Thus,
Plant and the others imagined that the Jegase of Sui (near Awala)
423 would share their land without reservations with the Jegase of
Sivepe, that the Seho of Awala would share their land with the Seho
657 of Sivepe, and so on. The Orokaiva, however, knew that their
position in the resettlement villages would be weak indeed unless
they retained their own village holdings. This weakness will
become more apparent from my discussion of the resettlement village
of Hamumi in a later chapter.

628 The closely allied villages, therefore, are not only a source
of cooperation but also competition. Seho returned and had no
423 trouble reasserting their rights; they accepted with good grace
that their neighbors had built their village partly on Seho land
and that the mission station had partly been built on it, but they
jealously guarded the rest of their holdings. Let us now consider
the specific variables listed in the previous section.

628 Transactions between members of closely allied villages
occur in kinship and friendship roles; decisions affecting the
villages as corporate groups are taken at a meeting where all adult
men of the affected villages are present, and have a right to
speak. Visits between the villages by individuals occurred almost
every day; formal meetings involving Sivepe and one of the closely
allied villages occurred, for one reason or another, about once a
month. The occasion might be a death, a bride price, a minor
dispute, some government or council or church project. Contacts
were equally close between young and old, males and females.
Meetings occurred in the villages, or, more casually, outside
[578] them. There is much affection between people of closely allied
villages and one finds that disputes between them, though giving
rise to a great deal of heated oratory, are not rashly allowed to
get out of hand. The disputes I witnessed were all resolved amicably
and serious breaches carefully avoided. On the other hand, neighboring
[574] villages were always treated with much reserve. Before the eruption,
they never ate together except under the formal conditions of a
feast; even today, when a feast is held at the mission station for
all the villages in the parish, each village sits apart in a separate
group. When people from different villages eat together in a formal
feast, each village house has its own little group of guests, who
are either kinsmen or in a partnership relation. Transactions between
such persons nonetheless have a greater fiduciary element than
[754] transactions with other outsiders. Sorcery between closely allied
villages occurs, but only, so I was told, by the employment of a
professional sorcerer from a more distant village. No Garombi man
would act as sorcerer, so I understand, to kill a Sivepe man, but
men from Isoge or Kendata could be found for such a service.

628 Although these contacts were confined to relatively few villages, their part in village life was by no means insignificant. Some of these contacts arose out of affinal links and maternal links; others arose out of residual land rights held in these more distant villages. Unless an annual visit is made such rights are
[631] apt to be extinguished. Only in one specific case--the marking out of the boundaries of the lower Sasembata local government council ward--was the contact between these villages a direct result of modern administrative exigencies.

628 I have already mentioned that Sivepe shared some land boundaries with Soroputa and Agenahambo; these boundaries lay
423 North of the Sohu River and were fairly indefinite. The blocks North of the river were used by Sivepe people of Soroputa ancestry, men with Soroputa or Agenahambo wives resident in Sivepe, and so on. The blocks were far away from the new Soroputa land Agenahambo
[659] villages and therefore not cultivated except by Sivepe people. It was only in 1967 that the local government council decided that the boundaries of wards should be properly laid out and surveyed, as a first step to title improvement within the wards. The people of Sivepe, Agenahambo and Soroputa therefore had to meet together to agree upon the definition of boundaries which hitherto were allowed to shift as expediencies (such as marriages, migrations) arose.

It was rather interesting to compare how this boundaries problem was handled between different villages. The eastern boundary of the lower Sasembata ward was in fact the boundary between Sivepe and Kongohambo. These villages were in very close contact with each other, shared many kinship links, had mourned each other's dead and had feasted each other. When the boundaries had to be defined, the Sivepe men simply walked to Kongohambo with their bush knives, had a brief meeting with the Kongohambo men (half an hour, no more) and proceeded to cut the boundary. The principles by which they established their landmarks are irrelevant here. On the other hand, Soroputa was handled in a gingerly manner. A small delegation was sent, two men who "originally" came from Soroputa, who actually owned the land on the boundary, and who had kept in regular contact with Soroputa. It was felt that Soroputa might refuse if anyone else was sent. This choice of ambassadors was especially interesting as there had been an "election" for an organising committee to determine these boundaries. Though this committee consisted of one man each from Sivepe, G rombo, Binduta and Isoge, the delegation that sent to Soroputa and Agenahambo was sent by the Sivepe representative and did not include a single representative, elected for this task.

628 This incident provides a good example of the role of the mediator which is crucially important in all inter-village contacts except those where alliance is very close. The two men sent on this delicate mission had no special qualifications except their

177 Orokaiva and whites developed at Ilimo were rather unusual. He quoted other Europeans making remarks to him such as that the experience "drew us all much closer together." A planter who was helping the organisation and staying in the camp commented that the people came to talk to him far more often than before.

177 There were altogether some 14 Europeans attached to Ilimo--two
medical assistants, two nurses, two government teachers, one agricultural
657 expert and the others administration workers, mission workers, etc.
Mr. Kaad, though himself a Roman Catholic, made it a rule for the whole
European staff, including himself, to attend the daily religious
services, "to show the people we were with them." Food distributions
were made daily through the village constables, blankets and medical
supplies were available as needed, adult education classes were almost
daily organised for both men and women, the agricultural officer
demonstrated techniques and supervised the gardening programme, the
Isivita people from Oro Bay were brought over to reunite families, and
Kaad himself began to speak in favour of economic development in the
future. Even such a bald summary indicates a far more intensive
contact with Europeans at Ilimo than the Orokaiva generally experienced
either before or since.

[329] Kaad's own comments place this experience in its proper perspective. He remarked that Ilimo camp showed the government in a good light, and that people responded especially when they found that they could go back to their villages. This comment indicates that the generous gifts of the Australian government did not, by themselves, lead to a removal of the Orokaiva fears and suspicions of Orokaiva motives. One question in people's minds was whether the government, having given the food and other comforts, would now feel entitled to seize land near the volcano. It was only when this suspicion proved unfounded that relations became genuinely warm, for only then were people sure that they were not the victims of trickery.

From our own knowledge of Australian administration we can easily
see that Orokaiva fears of land alienation were wholly unfounded but, on
the basis of their knowledge, the Orokaiva reasoned perfectly logically.
[431] First of all, it is regular Orokaiva custom, when one makes gifts, to
have in mind a claim one wishes to make for a return gift. Thus,
having accepted Australian gifts, the Orokaiva were naturally anxious to
[423] find out what would be demanded in return. Furthermore, the fear that
the Australians might demand land which was unoccupied and uncultivated
was based on past experience and on provisions actually on the Statute
Book (Native Plantation Ordinance 1925-1934, repealed in 1960).
According to this ordinance, land could be alienated where there appears
to be no owner and also for the purpose of "technical education of
natives in agriculture." It is a matter of historical fact that the
Australians acquired some choice land in the Orokaiva district under
these provisions prior to the second world war. (Information: P.
Sebire.)

177 If we analyse the reasons why the Australian government would
657 never have used these ordinances in the circumstances of 1951, we find
that these reasons lie principally in Western notions of government
423 responsibility for victims of disasters and other values of Western
Civilisation, restraining cupidity, and held more strongly that the
Orokaiva, on the basis of their information, could have taken for
granted. I myself found, and Mr. Sebire confirmed, that the Orokaiva
even today are extremely familiar with the provisions of this old
ordinance, and that they still fear it, even though it has been repealed
some years ago.

177 The episode at Ilimo therefore undoubtedly did much to increase
confidence in Australian intentions. Mr. Kaad stated to me that
657 the main ultimate purpose of the camp administration was to teach new
731 skills and a new way of life. Under camp conditions, there was a good
opportunity to teach these new skills and put forward new ideas, but
the real opportunity, he said, came later in the resettlement villages.
The people at Ilimo had their world shattered and were still recovering
from the shock. For that reason they could not absorb as much of what
they were taught as they could have done normally.

177 After Ilimo broke up, Mr. Kaad transferred to Saiho, where the
new hospital was then being built and where an administrative centre
657 was also established. (Only the Agriculture Department still operates
from there today.) He attempted to develop further the new ideology he
had been putting forward by contacts with the resettlement villages of
Agenahambo, Koipa, Awala, Waseta, Hongohambo and Mamuni. He continued
his educational, agricultural and medical programmes for some months
in these villages, but he was not able to stay long. From the viewpoint
of today, these programmes cannot be seen as marking a permanent change
in the pattern of Orokaiva-European contacts. It would be more correct
to say that the European soon became as remote as before but that the
ideas promoted at Ilimo and by Mr. Kaad were later taken up by the
people in the framework of organisations where direct contact with
Europeans retained only a minor role.

Section 9: Contact with Americans and Returned Ancestors

829 How did Orokaiva themselves classify white people? As we have
seen, they do not classify them according to the organisational role
they fulfill. I also found that ethnic origin of white people is
usually not a basis upon which Orokaiva will classify them. There is,
however, a more esoteric basis of classification which I encountered on
a number of occasions.

It is well known that in many parts of Melanesia, there is a
829 belief in the return of ancestors, whose skins are white, and who bring
769 wealth and a happier dispensation to their Melanesian descendants. The
Orokaiva do not appear to look upon every white man they see as a

657 731 In March, 1953, he was able to reduce the restricted area still further, to a circle of two miles' radius around the crater. Thus, all areas that had ever been used for the growing of taro and for village sites, became available to the Orokaiva once more. In these circumstances, it was inevitable that the fertile slopes of Mount Lamington were again occupied in much the same way as before the eruption.

As the first chapter of this report deals adequately with the planning and establishment of the evacuation camps themselves, I shall confine myself in this section to resettlement after the period in the camps. The number of places in which groups were settled between the day of the eruption and the present varies somewhat. The Sivepe people all went to Wairopi for a few weeks, then to Ilimo until end May, 1951, then to Awala, where some stayed briefly, others for a year. Since then the present families all stayed at Sivepe. On the other hand, the present population of Hohorita went to Cape Killerton (one week), Oro Bay (about ten weeks), Popondetta (a short period), Irihambo (almost five years), until they were able to reach their present site. The resettlement history of other villages close to the mountain, such as Kiorota and Begevaturu was about equally long.

We may generally distinguish two phases of resettlement, following the evacuation camp period. The first phase, occurring around May, 1951, was the transfer of groups from the camps to a number of chosen "resettlement" villages, mostly along the main road from Waseta to Popondetta, but also on sideroads, e.g., Sairope and Kongohambo. This is the phase when an attempt was made to set up model villages of largish size under close government supervision, following discussions at Ilimo when the people concerned had agreed to live together, and to make the innovations. It was no doubt the intention of Mr. Kaad to continue in these villages the educational effort started at Ilimo camp, and this will be discussed in subsequent sections.

The basic problem, however, was to ensure satisfactory garden lands for the resettled groups. The weakness of the locations chosen by the government was that they were mostly placed along one main road and thus within walking distance of only part of the available garden land. As Plant and Keesing foresaw, it was inevitable that the settlements would split up so as to bring people closer to their garden land. It is mainly for this reason that the Sivepe people did not stay at Awala. Furthermore, the resettlement was based on an analysis by Plant according to which a local clan group could be resettled in any village where there was a group with the same clan name. I shall give only one example of this sort of analysis, to show its effect. There are Jegase clan groups in Sivepe, Binduta, Sui (near Awala) and Isivita. Plant therefore suggested that in the resettlement of Isivita, the Jegase clan group could be shifted to Kongohambo and be given the use of land at Sivepe, Binduta or Sui. Some Isivita evacuees therefore [423] went to Kongohambo while others went to Koipa. The Jegase of Isivita were thus made to join groups which were themselves already fairly short of land and, in the case of the Jegase of Sivepe, dependent on

657 maternal relatives. Moreover, the fact that these groups have a clan
731 name in common implies very much less than that they have rights in
each other's land. They have rights to be protected and succoured as
423 brothers in times of war, starvation or other emergencies, but rights
in land cannot be established on that basis.

The government sometimes went to considerable trouble to give
supposedly secure land tenure to those who agreed to stay in the
resettlement villages. I have already stressed that in such cases one
cannot speak of "clan land" being made available to the immigrants,
because all Orokaiva land is owned by individual extended families.
[426] In such cases, individuals lend pieces of land to immigrants who are
allowed to cultivate them on a year-to-year basis. Their usehold
lapses when they leave the community. It goes without saying that
where this land is used by the techniques of shifting agriculture, a
man cannot depend on the land resources of his new village unless he
gets enough land to make about eight gardens in eight successive years.
Plant estimated immigrants' needs at five acres per person and this
is a good deal of land. I know of several cases where land was lent
to people who needed some. The pieces transferred usually measured
at the most one or two acres--enough, to be sure, for subsistence over
a short term but no more. The effect of this is not to make life
in the new village impossible but to hold the immigrant in a position
of dependence on landholders. Understandable, the immigrants make
every effort, after resettlement, to cultivate their own land, even
if it is situated some distance away. Once they begin to do this,
the temptation to build a village near their home gardens is very
strong. According to Orokaiva ideas, the immigrants lose all rights
over land which has been lent to them by their hosts as soon as they
stop residing in the village where the land is. Thus, as soon as
people decide to leave a resettlement village, they lose any rights
in it that their hosts may have given them, if Orokaiva legal principles
are followed.

I shall illustrate these principles in one concrete instance,
the resettlement village of Mumuni, situated between Sasembata and
Waseta, and I shall show how the government attempted to improve the
land tenure position of resettled groups. After the eruption, the
people of Dapari were persuaded to settle in Mumuni, which was intended
[425] as one of the new style resettlement villages. They were given some
land to cultivate and stayed for several years. When the government
[245] began to encourage the planting of coffee trees, the Dapari immigrants
planted coffee gardens at Mumuni. Under Orokaiva law, it is permissible
[426] to plant trees on borrowed land provided the owner consents and the
produce from that tree will then always belong to the planter, even
[422] when the land as such reverts to the owner. One frequently sees a
betelnut palm or a breadfruit tree which is owned by a person who at
one time borrowed the land and which is harvested by the planter and
left undisturbed by the owner of the land.

657 731 423 245 It is a ticklish question whether this rule similarly applies to coffee trees which differ from the traditional kind of trees in two ways: first, in that they occupy the whole of a piece of land and not just a few square feet of it and secondly, in that they are a source of cash income. The government was aware, from the beginning of the coffee scheme, that traditional Orokaiva law might be inadequate to protect coffee growers but balked before the huge task of giving all Orokaiva a legally registered title to their land. If this were to be done according to the principles of Australian law, it would involve expensive surveys, endless litigation and cost many times the value of the land, even if qualified personnel could be found to do the work. The Northern District administration therefore hit upon an ingenious dodge, by which the Higaturu Local Government Council, after summary investigation, issued declarations allotting land to persons who wished to plant cash crops. These declarations, made and witnessed by the clan elders, allotted the land to the grower in perpetuity. (For details see Crocombe and Hogbin, 1963: 89 f.) The practise of issuing these declarations was soon stopped by the authorities in Port Moresby who ruled that they have no legal validity, but Mumuni is one place where they were issued.

657 731 423 578 628 After planting their coffee at Mumuni, the Dapari people began to depend for their subsistence gardens on land they owned in their own natal district, which was an hour or so from Mumuni. All the Dapari people, except for the Jegase clan group of Dapari, went back to their natal district to build a new village; the Jegase clan group was the only one to stay behind at Mumuni. Their position was more favourable, as they owned land near Mumuni; hence they had no reason to go back to Dapari. I met these Jegase people when they visited Sivepe to receive brideprice. They told me then that one Mumuni man had made a large gift of land on which all the Dapari people grew their coffee. The Jegase group was growing coffee there without being disturbed by anyone, nor were they ever asked for payment. On the other hand, the owner wanted his land back from those Dapari people who had left to build their own village. But this group insisted on holding on to their coffee plantation; they stayed at Dapari and had subsistence gardens there, but they returned to Mumuni from time to time to look after their coffee. They claimed they were entitled to do this because they had been registered as owners in the Higaturu Council declarations. Thus a conflict developed, in which Mumuni relied on traditional custom whereas Dapari relied on a (legally invalid) kind of certificate of title. In this quarrel, the government could do little except hope it would blow over.

A New Zealand geographer, Mr. Peter Aitkins, who made a study of this area (unpublished), told me that the Mumuni people had begun harvesting coffee from the Dapari-planted plots. My own investigation showed that nothing was ever stolen from the Jegase clan group (who had not left Mumuni) and that Dapari had offered to sell the coffee stands to the Mumuni owner of the land, and that the owner was prepared

657 to buy, but there was no agreement on the price. Thus the thefts
731 seem to be a stratagem to get Dapari to agree to a lower price.

The first lesson we may draw from this example is that evidently,
423 resettlement villages are liable to be unstable unless the resettled
group has solid land rights close to the village. Thus, the resettle-
[578] ment of a group of Garombi people in Sivepe in 1966 may well be stable
because these people own land within a one-mile radius from Sivepe.
[628] But the resettlement of Dapari people in Mumuni was unstable because
the Dapari land was more than one mile away. In fact, the distance
between Mumuni and the Dapari lands could not have been much above two
miles, but this is still too far for subsistence gardeners. It is
therefore clear why Sivepe people did not agree to stay at Awala after
1951: their land was between two and four miles away from Awala, and
this was regarded as an excessive distance. In the light of the events
at Mumuni, we would be wrong to regard this attitude as "traditional"
and "opposed to modernisation;" it was a shrewd assessment of the
drawbacks of resettlement villages.

In the first phase of resettlement, the government took a
657 predominant part. Before evacuees could leave Ilimo, they had to
731 agree to resettlement in one of a number of villages which were to be
developed according to modern principles. The government took pains,
however, to work out the details of resettlement in consultation with
local Orokaiva leaders. Nonetheless, arrangements such as the sending
of the Jegase of Isivita to Kongohambo, in the hope that they would be
helped by local Jegase clan groups, were not based on a realistic
assessment of the possibilities. This agreement was easy to get as
it was seen to be a necessary condition for leaving Ilimo camp.
Resettlement plans were thus imperfectly adapted to the traditional
relationships between the groups concerned.

621 In the second phase of resettlement, many of the groups allocated
to the scheduled list of resettlement villages branched off to villages
731 of their own. This process started almost at once and continued for
657 more than five years. I have already stated that in Sivepe this phase--
the withdrawal from Awala--took place in the years 1951-1952, while
at Hohorita, Bagevaturu, Kiorota, Seva, Dapari it happened a good
deal later. In this second phase, the participation of the government
was much less active. In Sivepe, a patrol officer made a decision as
to the site of the village and the groups to be contained in it but
this was only after half the people had already lived in Pamba for
some time and a quarrel with neighbouring Kongohambo had broken out,
and when the Seho people were returning to the area.

The history of the settlement of Kiorota and Bagevaturu may
be traced from a file of the Department of District Administration,
Popondetta (12-3-2A). As already mentioned, the Isivita evacuees,
numbering 1,869, were "re-established" in the resettlement villages
of Kongohambo and Koipa. Soon disputes began to arise owing to the
insufficiency of land--villages such as Sivepe could give only limited
help in the way of lending gardening lands and marauding pigs were

621 another source of annoyance. Some village groups requested permission
to move from Koipa and this was granted. A report on the file refers
657 to the clearing of new gardens South of Koipa (end 1956), but in
731 May, 1959, we read that these persons who left Koipa had "over the
last 18 months split into two groups one of which settled at Bagevaturu
and the other at Kiorota." The villages had been laid out (according
to "modern" principles, as I myself observed), gardens and garden
houses established, coffee planted. Government supervision over these
movements was much less strict than it had been in 1951, though
strictly the village sites ought to have been approved before the
villages were built.

This second phase of resettlement became possible because the
657 first phase was not accompanied by any renunciation of land rights,
731 or foreclosure of the possibility of return. At no time did the
resettled groups give to anyone else a permission to occupy vacated
423 lands nor accept payment for any of their land or its products. After
245 this second resettlement, however, one substantial land tenure problem
remained. The nature of this problem is the second lesson to be
drawn from the example of Dapari tenure described above. The traditional
Orokaiva land tenure system is not well-adapted to cash cropping.
The Dapari people are likely to lose their coffee plantations as a
result of tenure difficulties. Likewise, Crocombe and Hogbin believe
that the failure of several Inonda families to plant coffee is due to
tenure difficulties. The Inonda families who did plant coffee were
careful not to do so on the extensive land holdings which they inherited
from maternal relatives because they feared claims that might otherwise
[428] be made by maternal kin. The fact is that a large proportion of
Orokaiva land is held on a legal basis much more complex than patrilineal
inheritance. When an Orokaiva holds land he has inherited
from his father, both he and his father having continuously resided
on the land, that man is indisputably the owner and he can grow coffee
or rubber on that land without fear of interference. We have already
seen that no Inonda land is held in this way. In Sivepe, most men
have some land of which they are indisputably the owners, but at the
same time most of them also have useholds over many pieces owned by
maternal kin or affines or absent agnates. They are "looking after"
this land, and the true owners never trouble them as they either have
their own usehold lands in the villages where they live or are working
in towns or on plantations.

These circumstances change as soon as cash-producing trees begin to be grown. It is then that claims begin to be asserted and Orokaiva customary law has no way of dealing with such claims. The owner is certainly entitled to a share of the proceeds, and the size of that share is dangerously indefinite.

Inquiry in Sivepe showed that the people were well aware of the danger. All but two coffee growers had planted on land inherited from their fathers, preferring to use their other lands for subsistence crops. One of these two exceptions was the Seho clan chief who had

657 planted coffee on his mother's brother's land. He explained to me
731 that this mother's brother was dead and nobody except himself had
any claims on the land. The second man, who had planted on his wife's
423 land, was not so fortunate. His wife's relatives live in Sivepe and
lost no time asking for the return of "their" land as soon as the
245 coffee was harvestable. He settled for a compromise: he planted
coffee on some of his other land and promised his affines they could
have their land back as soon as his new trees began to bear. As far
as I could discover, this was agreed to.

It has been argued by several students, especially Crocombe
423 and Hogbin, that title improvement is a necessary requirement for the
success of cash cropping in the Northern District. My own findings
suggest that the importance of title improvement varies a good deal
between villages. Where, as in Sivepe, a fair amount of land is held
under an undisputed title, no great gain in productivity can be
expected from the formal registration of these good titles. In other
places, such as Inonda, it is of course essential.

Crocombe and Hogbin (1963: 89-93) have described some early attempts to register Orokaiva titles under some scheme administered by the Higaturu Local Government Council; after describing several rules passed by the council for this purpose, each of which was in operation for a short period and then rejected by Port Moresby officials, the authors conclude: "Registration is of doubtful validity, but to the extent that the Orokaiva accept it as binding (and they appear to do so unreservedly at present) it functions in practice." The example I have given of the dispute at Mumuni shows clearly the disadvantage of all such informal registration procedures. If the Dapari people were to lay an information with the police that Mumuni is stealing their coffee, could any judicial officer convict any person from Mumuni of theft and send him to prison? I cannot imagine that Crocombe and Hogbin would applaud such action.

The government made a fresh approach to the problems of indigenous
657 land tenure with the passing of the Land Titles Commission Ordinance
423 1962, the Land (Tenure Conversion) Ordinance 1964, and their amendments.
Under these provisions a Land Titles Commissioner has been appointed
at Popondetta whose task it is to determine the land titles in
specifically designated "adjudication areas." The Commission prepares
an adjudication record showing what land in the adjudication area is
native land and the ownership of each piece of that land. A native
may then apply for registration in his name of any native land included
in the record by agreement, but no titles can be reigstered in a piece
of land which is less in either area of frontage than the standard
prescribed for the purpose for which the land is likely to be used.
In practice, this has meant that every individual holding registered
by the Commission should have a minimum area of 20 acres.

The operation of this system, and its difficulties, may be instanced from my observation of an attempt to apply it in Hohorita in 1966. Hohorita is a resettlement village harbouring some 12 clans;

657 it has a substantial area of land but holdings are very fragmented. As this village is very interested in growing coffee, its leader 423 suggested in 1962 that all Hohorita land should be consolidated and partitioned among the owners and titles registered. (Crocombe and Hogbin, 1963: 93) When I visited the community in 1966, an officer of the Land Titles Commission was busy measuring the ring boundaries. He found that the Hohorita people owned a total of 2,240 acres of land, enough for 112 unit holdings. I was impressed with the ease with which the people could be induced to accept the scheme in spite of its far-readhing repercussions. If the scheme was accepted, all boundaries would be redefined by the commission; people would often need to exchange their ancestral blocks with others in accordance with the map prepared by the commission. Moreover, the usual pattern of shifting cultivation would need to be carried on within the boundaries of the single 20-acre block which, in addition, would need to accommodate cash crops. The fluidity of traditional land transactions, the opportunity to revive old claims and residual and reversionary rights would be past, as the registration abolished them all, including the rights to planted trees. All this was explained but did not deter the people.

The scheme was killed in spite of its popular support, because it was soon bruited abroad that Hohorita was to be cut up. I witnessed myself that letters were written to men who had been living away from Hohorita for years and were never likely to return. These letters, written by relatives, warned the men to come to Hohorita to assert their rights. It had initially seemed that 112 holdings was quite adequate, in fact ample, for Hohorita's population, but as all the absentees came swarming to the Commission, a total of 126 men had been able to assert their rights successfully. In none of the Ordinances was residence specified as a necessary qualification for participation in a consolidation scheme; hence the Hohorita scheme had to be dropped and hopes dimmed that major schemes could ever be completed on a significant scale.

In 1967, a remedy to this problem was devised. According to this scheme, each ward of the Higaturu Local Government Council district was formed into an "adjudication area." The people were asked to determine the boundaries of their wards; as I have already described, the lower Sasembata ward did so with alacrity. The effect of this operation was that no person resident outside the ward would henceforth have rights to land inside it. Residence could easily be determined from the village census lists. These lists did not wholly represent actual residence, but a non-resident would be obliged to be present at every village census until he transferred himself to another village list. The main point was that every person can be on only one census list and thus have land rights in only one ward. The establishment of the boundaries would probably daunt any surveyor as numerous men have rights in the land of other wards, but I found that the work was swiftly done by the Orokaiva by the expedient of effecting some exchanges along the boundary line so that, for instance, Soroputa and Kongohambo

657 retained as much land as they had before, after the boundary was cut.
They had received some Sivepe land and they had lost an approximately
423 equal amount of their own.

Thus, the lower Sasembata ward is now declared an adjudication area of which the owners are about 600 people listed in the census records. Between them, these 600 people are now the undisputed owners of perhaps 2,400 acres of gardening land. The government would now like to see this area subdivided into some 120 economic holdings registered in the name of a single owner, but this is recognised as being extremely difficult. In one respect, however, this latest government approach is vastly superior to the previous ones. In treating residence as the basis of Orokaiva land rights, the new policy comes much closer to Orokaiva conceptions than earlier schemes which treated the patrilineal clan as the basic unit. The choice of the ward (rather than the village) as the adjudication area was fortunate in that it was much less disruptive of residual rights held by agnatic and at times affinal kin residing in nearby villages. On the other hand, the assumption that the ward territory can be profitably subdivided into 20-acre family holdings may not conform with Orokaiva expectations and conceptions. The administration is in danger, in this respect,
[591] of being misled by its own ideological bias. The enthusiasm people felt about the establishment of ward boundaries was based on the hope that thus the people of the constituent villages could form a big "company," as cooperating group which would function as a cooperative. I have already mentioned the paradox that the Orokaiva is an individualist but at the same time has a deep belief in the power that can be gained from corporate action. Ward producers' cooperatives, if they can be organised, may provide an excellent incentive to productivity while at the same time enabling some mechanisation to be introduced, both in transport and cultivation. The model I have in mind here is that of the incorporations established among the New Zealand Maori in the Native Land Act 1909, and developed since until their annual income today is in the range of several million dollars, earned largely by sizeable units often with an ownership running into several hundreds. (See Hunn, 1961; Schwimmer, 1968: 26-28.)

The problem of adapting Orokaiva land tenure to conditions of
[731] a cash economy, though not yet solved, has some promise of being successfully tackled. If all Orokaiva land were held under secure tenure, many new areas would undoubtedly be planted in coffee and other crops. The resettlement programme following the eruption of Mount Lamington has not, as I have shown, contributed anything to the establishment of persons on secure land holdings but the present policy of consolidation, perhaps followed by partitioning into economic family lots, is more likely to achieve this objective.

654 and local field trials are being carried out on the volcanic soils
of the Northern District.
242 Agricultural extension work was being carried on by Australian
officers stationed in Popondetta, with the help of Papuan agricultural
242 assistants some of whom were stationed in a sub-office in Saiho. It
is this staff which has been responsible for the gradual increase in
coffee plantings and the spreading of basic knowledge about coffee
cultivation. We should not, however, minimise the extent of knowledge
and stimulus that spread not through the activities of officials but
was passed on from experienced Orokaiva growers to beginners. Furthermore,
many persons trained as agricultural assistants have returned to their
villages and became a fund of knowledge to those around them. The
assistants are trained in a course of between nine and twelve
[879] months' duration, given at Popondetta. Papuans may also receive a full
agricultural diploma course at a school near Keravat, New Britain, or
a two-year sub-diploma course at a school near Keravat, New Britain,
or a two-year sub-diploma certificate course given at Popondetta.
Graduates from these schools were not yet working in the Northern
District at the time of my visit.

No stabilisation fund for coffee exists in the Territory. The
435 violent fluctuations in price for this product do have a somewhat
unsettling effect on growers, though I could not observe very much of
245 this as 1966-67 was a good year. I heard that in bad years in the near
past people had been very disappointed. The problem of price fluctuations
affects other tropical crops as well, and New Guinea has few
sources of income which are significantly stabler than coffee. Therefore,
no easy solution to this problem is possible. The Orokaiva Coffee
Growers Society has been following a wise policy of withholding a
substantial part of the proceeds in good years for capital improvement,
thus providing a kind of cushion against fluctuations. Thus, in
1966-67, a substantial proportion of proceeds was withheld for improvements
to the factory and trucks. Growers are paid an initial sum
per pound substantially lower than the expected total proceeds, and
the balance is in part distributed to shareholders at the end of the
season, in part withheld. By this procedure, a substantial drop in
export prices can be suffered without corresponding lowering of the
initial cash payment. In 1966, the cash payment was $26 for a 150-pound
sack.

A good deal of development work has been left for the Higaturu
657 Council to deal with. I have already mentioned that government officers
423 attempted to have the council deal with matters of land tenure improvement
(though Port Moresby authorities overruled this) and that the
coffee factory was planned as a council operation though again plans
were changed later. In 1966, the main activities of the council were
653 in the building of roads, the improvement of water supplies, the building
of medical aid posts, the maintaining of the produce markets at
Popondetta and Saiho and some minor social services. (For details,
see Table 12.)^A Thus, a sizeable area of local development had become

A [See Cat. 116, p. 217--Analyst]

361 Inonda people. They built a da of their own at a very short distance
731 from Inonda; both these da were very close to the airstrip and
abandoned now. Although these two da were less than a hundred yeards
628 apart, they were still two socially distinct units. It sometimes
happens, as in the case of Hohorita, to which I shall return, that
two such contiguous villages are later joined together into a single
one, but this is a deliberate act, involving the slashing down of the
intervening brushwood and, ideally, also the removal of houses which
would run through the centre of the combined village. If Sewa people
had taken up permanent residence in Inonda, such fusion would have
occurred, no doubt, but instead they went back to their own land.

621 Sivepe, with its present composition, goes back in time no
further than about 1948 when the village Pamba was built, combining
361 an older Sive and a now defunct village Pusahambo. The census list
current at the time of the eruption still shows the population of the
[162] two villages separately, though in fact they had already fused.
(Sive 58, Pusahambo 41) I do not know how many residential units there
were then, but in Old Sivepe, in 1962, 23 were counted, plus one
belonging to the anthropologist. At that time, the population was
120. When I arrived in Sivepe, the new village was only partly
completed. Some people lived in new houses; some had not yet built
or finished their new houses, but had shifted their old houses from
the old to the new village. Others again were still domiciled in the
old village, but had declared their intention to start building in the
new one "soon." At the time of my arrival, six of the houses in the
old village were still inhabited; nine months later, this number had
dropped to three, two of the houses being inhabited by widows living
alone, while the head of the sole remaining family had almost completed
[231] his house in the new village. At the time of my arrival, a good number
of the village pigs were still being kept in the old village (these
animals being rigorously barred from the new one) but by the end of
my stay, these pigs had all gone to the bush. New Sivepe, at that
time, had 25 dwelling units, plus the one rapidly nearing completion.
The total number of dwelling units included in the study (28) accommodated
137 people. There was occasional discussion of further increments in
the population, as families from Garombi were considering moving in
and would have been welcomed.

361 At no time since the eruption did Sivepe exhibit rigorously the
village plan that was regarded as ideal. In Old Sivepe 18 out of 23
houses were arranged around the araha in standard fashion, while another
five houses had been built outside the village proper, along the old
[426] jeep road, separated from the rest of the village by a gully. The
land on which Old Sivepe was built was lent by three individuals from
different kinship groups; residents chose their house site irrespective
● [423] of their possible ownership of land on the village site. On the other
hand, the five houses built outside the village proper were all on
land owned by the residents. Though some of these houses were as
much as four chains away from the village proper, they were still

433 of shifting cultivators actually do shift their villages to save time
as previous investigators have believed: perhaps, we need to look
461 for entirely different motivations.

241 The question is an interesting one, but Sivepe does not
provide a clinching counter-instance. Mr. Waddell's sample was taken
114 entirely from the Jegase and Timumu clans, while he did not collect
data on travelling time from the Seho clan. Now it is the latter clan
[484] which owns most of the land around New Sivepe, so that their travelling
time is (at least for most families) substantially reduced by the shift.
[423] Furthermore, five of the Jegase households (some of which were formerly
called Timumu) now have gardens very close to New Sivepe. The main
sufferers appear to be two families who migrated from Binduta recently,
whose land is mainly close to Binduta, and against whom feeling has
been building up over the last few years. Mr. Waddell is right,
however, in stressing that the major reason for the shift (as given by
informants) was the closeness of the new village to the road and the
mission station. As such the basis of the shift was practical and
ideological but I believe that overall travelling time was reduced
if both Seho and Jegase clans are taken into account. Certainly the
new village is very close to the land of most of the Sorovi people
who settled in Sivepe in 1966.

The second suggestion made by Waddell is that travelling time could be reduced, and thus working efficiency increased by land tenure conversion. He has in mind, I think, the arrangement already found in Papuan returned servicemen's settlements established by the government: where each individual family is settled on its own 20-acre block and grows cocoa and subsistence crops there. Conceivably, when tenure conversion is completed, the Orokaiva might be encouraged to live on individual farm holdings rather than in compact villages. Some planners in the Territory are actually playing with this idea. It has many drawbacks, however: distance from roads, from schools, collapse of social control institutions, abandonment of useful social development projects such as the provision of good water supplies in the resettlement villages.

Comparison with Inonda suggests that as the proportion of adult males lost through migration from Inonda is smaller, and none of these males have left dependents in the village, and furthermore, as the amount of cash cropping work is relatively smaller, the Inonda people are less pressed for time than those of Sivepe. This is borne out by the fact that they are away from the village more frequently as Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of
time spent on productive work, but the amount of time devoted to social
activities and contacts outside the village declines even more steeply
after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

621 social distance also. Relations between Inonda and Ureo or Hohota,
from which Inonda recruited wives, were distinctly less friendly than
628 those prevailing between, say, Sivepe, Garombi and Binduta. (See
my doctoral dissertation and also Hogbin, 1966.)

If we seek an explanation for the far greater heterogeneity
563 of Inonda, we find two historical causes in this sample: a war and
621 a disaster. The link with Kendata came through the Managalasi man;
the links with Sangara came as a result of the eruption of Mt.
167 Lamington. Admittedly, this Sangara link was of a modern type, the
central figure being a mission teacher. The residential pattern however
is ancient: due to some vicissitude, a man settled with his affines;
this led to further marriages between his village of origin and his
village of residence. He was given enough land to cultivate for
subsistence. In this case, the Sangara immigrant still quoted his own
clan name when asked; the Managalasi man did not.

If we go back a little further in the history of Sivepe, even
only one generation beyond the present residents, we find much the
[727] same pattern as still survives in Inonda. The capturing of young
orphans was a commonplace event among the Orokaiva, as were also
[423] migrations to escape from enemies. Sometimes the fugitives or the
orphans returned eventually to their village of origin, looking for a
friendly relative who was willing to meet their claims to the land of
their fathers. In going back a few generations into the past, one
never knows for certain who is a new immigrant and who is a claimant
for ancient rights.

The tendency is always to obliterate the traces of alien
origin, to drop alien phonetical habits and alien use of grammar and
[723] vocabulary as soon as possible. On the other hand, myths of the place
of origin will still be transmitted to the children, so that anyone
collecting tales among the Orokaiva will be presented with a variety
of versions of different local origin. Many of the best ones I collected
were of Kiorota origin because the father of old man who told
the stories came from that district about 45 years ago. Furthermore,
the links with the place of origin are rarely broken off, not even in
the case of women or babies who were abducted as war captives. The
immigrant wishes to keep alive his land rights in his place of origin.
The people of his native village in return wish to exploit any advantages
there may be in the connection between their absent clansmen and his
hosts. This connection will be kept alive by further intermarriages.

Immigrants and their descendants therefore retain multiple
167 loyalties. As these loyalties are kept alive over the generations
563 by intermarriage, use of trees in the other village, fishing and
hunting rights, and as migration used to be very common before the
pax Australiana, such multiple loyalites are extremely common. I am
not quite sure how these loyalties fared in time of war, but I understand
that if two men who were linked by such relationships found
themselves on opposite sides in a war, they were unlikely to fight
each other though stories are told of unfortunate accidents. I have

177 the people. When the Japanese were gone he went back to his old village;
797 around 1946 he took over a school at Sewa, established after the war
in a hitherto heathen area. Moses told people to build school rooms,
houses for the teachers and a church. The people worked hard on these
projects because they wanted to send their children to school. The
school served a number of mountain villages in the vicinity of Sewa.

After the eruption, Moses, who had fled to Inonda, was transferred
by the Bishop, first to the mission station at Gona, later to Togahou.
About 15 months later, he was posted to Inonda, following an appeal
from the Sewa people to the Bishop. This group had not had schooling
since the eruption. At Inonda, Moses asked for a house to be built
for him as well as a school. His pupils included children not only
from Sewa, but also Hohota, Hiriju, Ureo, Mosou, Ajoro and Dobuduru.
[562] Two of his daughters married Inonda men, one married an Ajoro man.
When the Sewa people returned home, Moses stayed with his affines.
With regard to gardening land, he is essentially no better off than
the pastor at Sasembata. His Inonda affines lend him gardens from
year to year. He also plants gardens at Hohota, owned by affines and
a deacon. (See Crocombe and Hogbin, 1963: 33-35.) After he retired
from teaching in 1959, his status soon dwindled. Crocombe (1966)
has published an account of an initiation feast he held for his daughter's
son. In keeping with his former role, this was given a highly acculturated
flavour. It was on a larger scale than most of such feasts; Crocombe
thought this was "to reaffirm his prestige and reinforce his stake
in the village of his residence." (Ibid.: 78)

This was the man who brought Christianity to Inonda and the
surrounding villages and who thus, in the context of culture change,
must certainly be ranked a one-time "key personality." Yet his present
status is demonstrably marginal. It is better than the Sasembata
pastor's because he has affines to call upon, but the obligations of
affines are strictly circumscribed: marriage gifts, help, if necessary
sustenance. All these have been well provided; the affines have been
good, even generous. Nor need the pastor fear for his descendants:
they will be helped, in the usual Orokaiva way, by their paternal
[423] relatives if they stay in Inonda or Hohota. But gifts of land are
not regarded as an appropriate reward for missionary services rendered
[431] by individuals.

Section 3: Residents of the Community

177 Among the key personalities in Sivepe over the period under
consideration there were resisters as well as promoters of change.
Among the resisters was undoubtedly Isemba, leader of the Seho clan,
who died (unbaptised) in 1963. While this man was alive none of his
clan joined the church; he did, however, agree with school education.
[797] I was not able to learn much about him except that he was most knowl-
edgeable about the holding of feasts and their magic and that he feared
[754]

124 really stood. In this, there may have been a certain hollowness;
177 I never saw among all the Orokaiva a young man who was as scared of
his affines as this one. One reason why I employed the young woman as
second interpreter was that nothing would induce him to open his mouth
when I wanted to talk to his classificatory father-in-laws. In all
significant respects, then, he offered little challenge to accepted
tradition.

Children were trained by their parents in the prevalent system
867 of custom and belief, as modified by recent changes; they maintained
869 their traditional regard for their elders, not regarding their school
knowledge as giving them any claims to superiority. Their elders did,
177 as far as I know, make no use of the knowledge their children gained
at school; my two interpreters were the technicians when letters had
to be written or other newfangled problems solved. Everyone in the
621 village, including ourselves, were expected to fulfill reciprocal
obligations in the community; the acculturated young were certainly
571 expected to help their kinsfolk, especially if their knowledge had
602 yielded cash. Even those absent on jobs in town were always asked
(and occasionally expected) to help. There was only one partial
escape from community obligations and that was to live outside the
village. Migrants knew that whatever possessions they had amassed
awy from home would soon have to be shared out if they returned to
Sivepe. While they were away, they could more often refuse demands
with impunity. But they knew that unsatisfied claims tended to be
stacked up against their return. Some claims were purely try-ons.
I have myself been the communicator of such claims from a Kongohambo
man to his kinsmen in Port Moresby; I could see that the response
to some of them was merely hearty laughter. But others,
communicated at the same time, were taken seriously; some gift had
to be made.

The penalty threatening an absentee who neglected his kin had
[626] to be paid when that absentee returned; especially when that absentee
[423] wanted to resume possession of his land holdings. Little would it
benefit him that certain lands had been left to him by his father, for
during his absence, other men had been "looking after" them. If he
had neglected these men, his rights would be hard to reassert; the
community would give him little sympathy. If he had been generous
during his absence, he could be strong in his claims; his relations
would then show him benevolence. Rights could be kept warm only by
constant exchanges; a moratorium of more than one year begins to be
risky. While a man is in town, the exchanges seem unequal; money or
clothes go to the village; some taro are sent to town (when I went to
Port Moresby I was given a sack of these to carry, to be distributed
by a knowing relative in town).

For those who remain in the village, the sanctioning mechanisms
626 are mostly informal. Failure in one's obligations means loss of
status, leads to gossip, derogatory remarks to one's face, perhaps
even a harangue at night by a man at the other end in the village.

521 of them made frequent visits to Popondetta and there met urbanised
Sangara. A group used to meet in the hotel for what were often
political discussions arising out of current events and rumours. This
emphasis on the political and ideological reminded me of what I had
seen among the Maori, the Indonesians and what is reflected in recent
African studies: the kinship universe is crosscut by other ideas
presupposing a political centre, centralised power, fundamental social
and economic changes. The presence of Papuan public servants made
[474] much difference here. For instance, nobody in Sivepe, discussing
savings accounts, would have thought of telling me that there are
54 cooperative societies in the district only four of which are
Savings and Loan Societies. This group knew the pulse of the Northern
District in concrete factual terms while Sivepe relied on disconnected
phenomena that happened to drift into their ken and from which their
suspicions and hopes shaped an image sustained by the stories of their
councillor.

Section 5: Internal Influences of the Eruption

361 Compared to the two sample villages, Hohorita is a more densely
concentrated settlement, with 348 inhabitants in 41 houses. When I
621 was there, there were still two clearly separated araha; the dominant
clans of the front village section were Horeopa and Oripa; in the back,
[161] Besupa and Sehopa. But within each section, there was no striking
separation of the clans into "sides" as in villages in the Sasembata
district. House distances were as at Sivepe.

614 In contrast to Sivepe, there is no tendency for clan groups to
fuse, 12 independent names being given to me. This number can be
621 somewhat reduced if we ignore those clan names represented by a single
family where the wife belongs to one of the major Hohorita clans--the
wife is then the "sponsor," in Fischer's sense, of the household.
Thus, two of the clan names given to me belonged to immigrants from
the Sasembata district who had married into Sangara. For all practical
purposes their allegiance lay with the clan of their wives. The other
clan names were all Sangara, representing survivors from numerous
pre-eruption villages.

In household composition, the smaller settlements of Sombou and
592 Kakita rather resembled Sivepe, but in Hohorita three-generation
households were more common and bachelor's houses were not found.
[597] Furthermore, many children were left parentless through the eruption
and these were adopted by Hohorita households, especially by childless
ones. As a result, childless households in Hohorita are far rarer
than in Sivepe. A considerable number of marriages and remarriages
[423] occurred immediately after the eruption. The sharp drop in population,
furthermore, left Sangara with plenty of land for the survivors, so
that 25-35 year age group is far better represented in Horotia than in
Sivepe.

731 Immediately after the eruption, the Sangara people decided to
waive all bridewealth, so that a large percentage of the women in
[583] Hohorita were married without one. At the present time, bridewealth
is reinstated, and young men go to neighbouring plantations, which are
[464] plentiful--or else further abroad--to earn them. While many husbands
worked outside Hohorita, most of them were able to return home at
[595] weekends. Polygamy was pronounced before the eruption, but it seems
that the polygamists became victims of the eruption and polygamy no
longer exists as a recognised institution.

871 If the average educational standard at Hohorita is slightly
above that of Sivepe, the reasons are: better facilities during the
years 1945-1951, loss of many members of the older age groups in the
eruption, special efforts made by Bishop Hand at Irihambo to draw
Sangara into mission teaching. This higher standard is reflected in
the statistics of persons who at one time or another have been in
skilled occupations. (Table 21).[A] The persons who returned to Hohorita
434 did so with the express idea of making some money out of coffee; the
average income from coffee in Hohorita is certainly far in excess of
that in Sivepe (about $100 per annum).

Hohorita does feel that it is held back by the present educational
871 provisions which are little better than those in Inonda and much
inferior to those at Sasembata. (At Hohorita, there is no schooling
beyond Standard 3, whereas Sasembata goes up to Standard 6.) Hohorita
people compare the school unfavourably with the government school at
the Sangara resettlement block which offers Standard 6, and which,
furthermore, has more highly qualified teachers on the staff. My
own impression was that the head teacher at Hohorita is a very good
man; some of the criticism of him is no doubt due to spite, for he is
of local origin. Still, the general criticism of facilities at
Hohorita is not unjust.

621 Hohorita is less homogeneous in ethnic origin than the other
villages discussed, as the population is drawn from different parts
563 of the Sangara tribe and intermarriage with other tribes has been
592 frequent. The explanation may be found in the pressure, after the
disaster, to find mates when most preferred potential marriage partners
had died in the eruption. This breaking down of the endogamous emphasis
after wars and disasters is, as I pointed out earlier, traditional
among the Orokaiva.

Heterogeneity was countered to some extent by an arrangement
423 which was, according to informants, made by a popular meeting shortly
591 after the eruption. According to this arrangement women who married
outside Sangara, would be allowed the same land rights as though
582 they had been sons. This was done in an effort, so I was told, to add new
to the depleted Sangara population. Men would thus be encouraged to
settle on Sangara land rather than take their Sangara wives home with
them. Two men from the Sasembata district are now living in Hohorita
under this arrangement. They keep up normal exchange relations with
their home district, e.g., I know one of them lent hambo for the kere

[A] [See Cat. 116, p. 228--Analyst]

423 dance in Sasembata. But they enjoy very much better conditions than
are usual for men who marry uxorilocally.

591 The mortality among the elderly at the time of the eruption was
582 so great that many traditional customs and myths were lost among the
Sangara with the elders who knew them. For instance, rituals carried
on at birth in Sivepe are no longer practised in Hohorita. For the
731 rest, I did not see many differences between the villages in level
165 of acculturation. Housing conditions in Sivepe were better; money
was more plentiful at Hohorita. Dances were far more carefully
practised and more expertly performed at Sivepe. Clearly, the Hohorita
177 people spent more time at their coffee; this was given as the reason
184 for neglect in other matters. It may well be that cash-cropping above
the level noted at Sivepe has necessary consequences of this sort
unless technological changes occur. Ideologically, Hohorita is--as
I demonstrated--more deeply involved with the concepts of the New
Day than Sivepe.

Though no groups have left Hohorita since it was founded, the
621 co-residence of these many clans does make for a certain instability.
The leaders of the Oripa clan group told me that just after the
614 eruption very few Oripa were left, but as the clan was becoming more
numerous, it was beginning to think to establishing its own village.
Besupa was harbouring similar thoughts. Both these clans were minority
clans in their part of the village and this inevitably implied some
subordination. In Sivepe, the fusion of Jegase and Timumu had established
a fairly equal balance with Seho, as both clan groups were about equal
in strength if the greater resources of Seho are taken into account.
In Hohorita, however, the supremacy of Horsopa (and Sehopa in the back
section of the village) could hardly be challenged. The councillor
and the government are opposed to such fission and overcapping organisations
such as the credit union, the women's club, the church, the
school, etc. may gradually set up a firm esprit de corps. The importance
of tree-crops (as opposed to shifting cultivation) in the Hohorita
economy might be a further disincentive to the migration of groups to
another village, but Oripa has in mind a new village site which would
actually be closer to their coffee gardens.

Section 6: Conclusion

In this study, we have found three complex forces, acting as
177 causes of changes, to be intertwined: forces acting throughout Papua
and New Guinea to promote socio-economic development, the effect of
the relocation of certain communities near Mount Lamington after the
eruption, and the physical and cognitive effects of the eruption itself.
The last-mentioned of these forces was far more disastrous for Sangara
than for the rest of the Northern District of Papua. In tracing the
731 causes of culture change in Hohorita, we have to give especial emphasis
177
[797]

423 ●
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102
621
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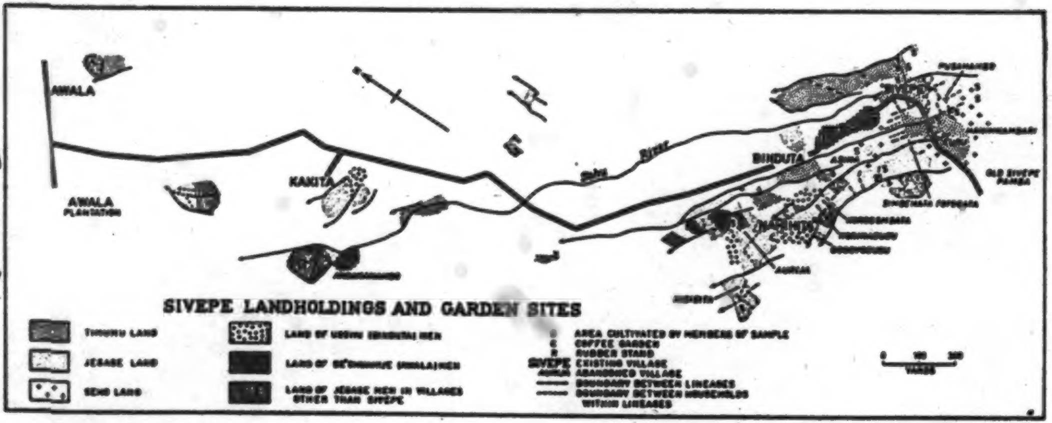
311

Map III

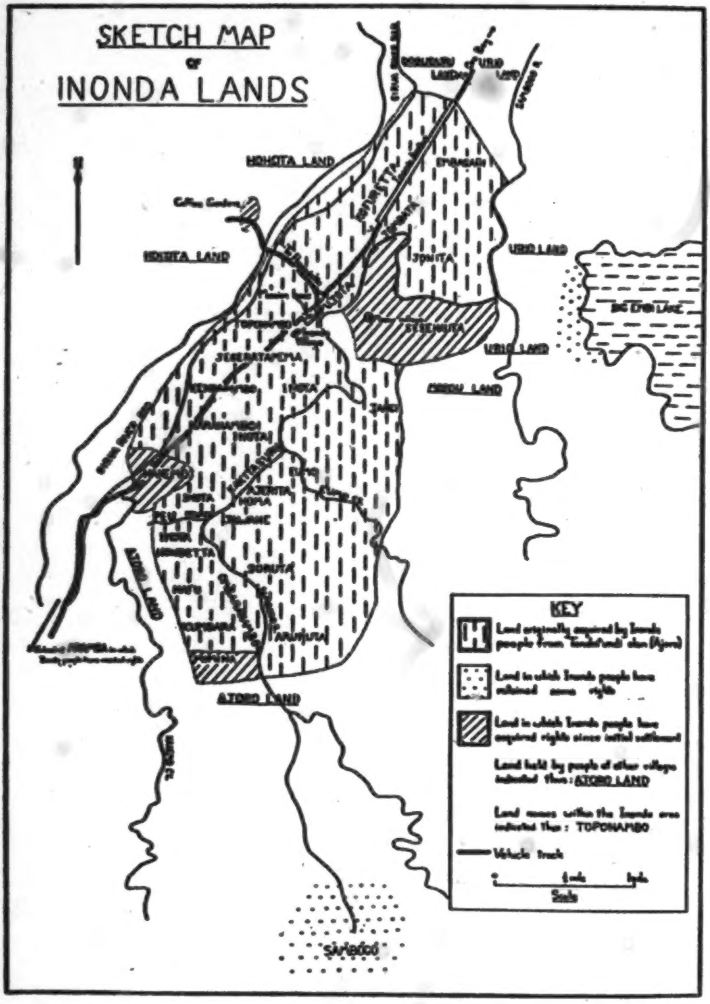

AWALA
AWALA PLANTATION
KAKITA
BINDUTA
SIVEPE LANDHOLDINGS AND GARDEN SITES
JEBASE LAND
SEHO LAND
LAND OF JEBASE MEN IN VILLAGES OTHER THAN SIVEPE
AREA CULTIVATED BY MEMBERS OF SAMPLE
COFFEE GARDEN
RUBBER STAND
SIVEPE EXISTING VILLAGE
ABANDONED VILLAGE
BOUNDARY BETWEEN LINEAGES
BOUNDARY BETWEEN HOUSEHOLDS WITHIN LINEAGES
0 100 200
YARDS

Source: Rimoldi 1966: 52

[End Map 3]

MAP IV

102
423
491
133
361


SKETCH MAP
OF
INONDA LANDS
HOHOTA LAND
Coffee Garden
HOHOTA LAND
URIO LAND
URIO LAND
BIG EMBI LAKE
JONITA
SISEHUTA
JEREBATAPEMA
INDA
AJENTA
HOPA
SORUTA
ARUTUTA
ATORO LAND
ATORO LAND
SAMBOGO
KEY
Land originally acquired by Inonda people from landlord clan (Ajeva)
Land in which Inonda people have retained some rights
Land in which Inonda people have acquired rights since initial settlement
Land held by people of other villages indicated thus: ATORO LAND
Land names within the Inonda area indicated thus: TOPONAMBO
Vehicle track
0
Scale

Source: Crocombe & Hogbin 1963 : 105

[End Map 4]

121 [781] [824] partnership with European power are fully canvassed, but conflicts arising out of the relocation of refugees after the eruption and conflicts concerning land tenure are not reflected in ideological discourse related to the disaster. How can we explain this selectiveness?

We may finally ask: To what extent have signs communicated by the eruption become an integral part of the Orokaiva system of thought in 1966? To what extent do they appear in the rhetoric expressing current ideologies? To what extent has the eruption generated these ideologies? How do cognitive systems adapt themselves to far-reaching events (such as the establishment of Australian authority) which call into question the traditional rationale for behavior? In short, the Orokaiva data lead us to an exploration of the dynamics of non-Western thought.

128 The factual material presented here corresponds closely to the preoccupations agreed on by the contributors to this volume. I commence with the presentation of some background data, emphasizing institutional, transactional, and ecological factors. The semiotic analysis that follows is focused on crisis behavior. The analysis will bring to light conflicts in two areas which are of special concern in comparative study of exile and migration in Oceania: the macrosystem/microsystem relationship and the maintenance of ethnic boundaries.

My discussion of land tenure conflicts, ignored in the ideological discourse under examination, will deal with the cultural meaning of spatial movement and the significance of land at various
● [423] levels of culture. It will be demonstrated that although land tenure
[182] does not figure in ideological discourse about the eruption directly, it is integrated into ideological discourse indirectly.

121 The use of semiotics in anthropological analysis is at an early stage of development. Among the well-known pioneers in America are Bateson (1935, 1951), Mead (1964), Sebeok (1970), and sources such as E. T. Hall, Alfred Hayes, and Weston LaBarre. In this chapter, I have relied a great deal on the work of Lévi-Strauss (especially 1958, 1960, 1962), whose semiotics forms an integral part of his structural comparative method.

Semiotics has inevitably drawn extensively on linguistic concepts, since linguists have traditionally engaged in sophisticated analyses of symbols. The present chapter owes a debt to Saussure, to Hjelmslev, and especially to Barthes (1964a, 1964b). I would

781 of the evacuation camp provide an interesting case study in the relation between administration and Papuan ideologies.

657 Several frightening explosions and floods occurred in February and early March 1951. These vindicated the administration's restricted area policy, which kept the mountain slopes out of 781 bounds. But after the period of acute volcanic phenomena was 166 over, Orokaiva pressure on Mr. Kaad, administrator of the Ilimo Camp, grew steadily. The opening up of restricted areas began as early as April 1951, so that the population of Ilimo began to decline sharply in that month—from 2,000 to about 1,000. It declined to 500 before the camp was closed in May. Although the speed of resettlement did not actually conflict with administration policy, Kaad freely admits that the pace was forced by Orokaiva pressure.

This speedy return to the land was prompted largely by fears which rapidly began to overshadow the Sasembata villagers' fear [769] of the mountain. In part, these fears were religious. Separation from the land meant separation from ancestral spirits who were left altogether untended when the whole community lost access to the land. Proper birth rites and ritual care for infants became impossible, as was ritual care for the dead, for both must be performed on the taro field associated with certain deceased consan- ● [423] guines. On the sociojural level, the migration of an entire agnatic group was dangerous since it could activate residual rights over land which were held by other agnatic groups.

121 It is likely that the same anguish about separation from the land would have been felt by most swidden agriculturists in the same circumstances. Such anguish cannot be fully explained by the religious and jural system prevailing in one culture alone. My purpose in this chapter, however, is more limited. It is to relate Orokaiva ideas about the eruption to Orokaiva ideas about land and spatial movement.

423 425 These ideas are part of the structural patterns to which I referred above: the weakness of corporate groups and the emphasis on the exchange system (see also Rimoldi 1966; Schwimmer 1970a, n.d.). At least half the land in Sivepe and nearly all the land in Inonda is occupied by persons other than the agnatic corporation acknowledged to be the "original" owners. Occupation of such land arises mainly out of use rights granted by these owners to nonagnates. In practice such use rights often become heredi-

423 tary within the user's agnatic group. Although the use rights were, at first, mostly granted as an act of friendship, occupation may 425 continue even when positive reciprocity is no longer well maintained between owner and user and the owner would like to find pretexts for recovering the land.

It is a clear rule that land reverts to the owner as part of his residual rights as soon as the user ceases to occupy it. Hence departure, even by individuals, at once raises a problem of maintaining control over use-right land. An individual does not leave his land for more than a few days without appointing some person to look after it. This person may be an agnatic or uterine kinsman or an affine whose wife is consanguine to owner or user. Men taking jobs outside the village regularly resort to the appointment of a caretaker for their land. This practice has not only ritual but also legal implications. The caretaker will fight other claims to the land, if only because he himself has become the occupier and the legal beneficiary of its products. If the original occupier stays away too long and his social position in the village is not strong, he may have trouble recovering his land from the caretaker upon his return. This is a risk arising in many cases of labor migration, uxorilocal marriage, adoption, or departures prompted by personal conflicts.

731 Interviews I conducted in 1966 and 1967 showed that the evacuees at Ilimo were extremely fearful for the safety of their 423 land. The danger they feared most was the activating of residual rights by persons whose agnatic group had at one time been asso- 425 ciated with their land.[17] Community relocation, by its very nature, leaves nobody behind to look after the land. It thus creates a legal vacuum that is ordinarily absent in migrations of individuals and small groups. Any individual who sneaked out of Ilimo and settled on a coveted piece of land to which he had some residual rights would be hard to dislodge under the conditions of Pax Australiana because the Australians, so far, have been able to maintain law and order without the benefit of land registration.

The fears about losing the land which explain much of the ten- 182 sion at Ilimo Camp are a direct consequence of conflicts implicit 423 in Orokaiva social structure. The institution of land borrowing, 614 the retention of residual rights over several generations, and the consequent multiplicity of rights and claims over land parcels are directly related to the small size of corporate groups and the

182 423 614 dependence on the exchange system for the creation of larger solidarity networks. In a culture where warfare was endemic, these larger networks were indispensable in order for the traditional land tenure system, with its emphasis on multiple rights, to be socially adaptive under precontact conditions.

178 423 The 'new age' ideology, as expounded in 1966–1967, does not ignore these basic conflicts but incorporates them in the notion that multiple ownership belongs to the 'past age' whereas sole tenure is the modern ideal. There is strong support today for administration moves to establish a system of sole titles and to abolish the institution of multiple rights. Cash cropping has emphasized the need for such a change. In practice most Orokaiva today plant cash crops on patrimony land rather than on land on which there are invocable claims of residual rights.[18]

The movement toward individual landholding did not start in the Northern District until the mid-1950s, when there was a government-inspired attempt to have landholding titles issued by the Higaturu Local Government Council (see Crocombe and Hogbin 1963). I am not aware of any organized attempt to reform the system of Orokaiva land titles at or before the time of the eruption of Mount Lamington. If such reform is being introduced into the 'new age' ideology today, this must be credited to indoctrination mediated through members of the local government council.

781 657 423 We have seen that, at Ilimo, the traditional land tenure system was the basic cause of a conflict which strongly affected the course of the administration's resettlement policy. The officer in charge of the camp perceived two main purposes: to keep the people safe from the volcano and to rehabilitate them afterward in villages which would have a more modern life-style. As we have seen, the Orokaiva accepted both these objectives as desirable and benevolent. On the other hand, there was a difference in the importance that Orokaiva and administration attached to an early return to the home villages. The administration might have preferred a longer period of evacuation for the sake of safety from the volcano and also for the sake of its program of community education. They met, however, with a restlessness which made them hasten the disbanding of the camp. The same restlessness induced the Orokaiva to agree quickly to some programs of resettlement, not because these programs appealed to them very much but because agreement would hasten their return to the land. European

731 administrators, accustomed to secure forms of land tenure in their
657 own culture, could not fully share the Orokaiva anxiety about losing their land.

423 This conflict between people and administration was settled amicably. It did, however, emphasize the fundamental difference between Orokaiva and European perceptions of the crisis. For the Orokaiva, it was the relatives—the holders of residual rights to land—who were viewed as the greatest danger, whereas the volcano was soon considered less dangerous. For the European, the relatives were not perceived as dangerous, as it was imagined they could somehow be controlled by the legal weapons available to centralized government. On the other hand, the danger of the volcano was viewed far more gravely, for the Europeans knew of no way to control future eruptions.

Both sides had a strong case in this disagreement. The Orokaiva had a strong case because the Europeans had no institutions that could have protected them against encroachments on their land. There was (and is) no adequate registry. The administration's case rested on its logical consistency with the development ideology it was trying to inculcate. The traditional Orokaiva land tenure system is incompatible with development because it impedes spatial movement and the traditional extended exchange network lacks the flexibility of a market system. Modernization depends on the creation of large corporate groups with well-defined systems of rights and obligations, instead of the subtle but essentially unstable web of warfare, diplomacy, affinity, and friendship. The 'new age' ideology of 1951, though fortified by the experience of the eruption, did not envisage modernization in this basic sense, while in 1966–1967 the implications of the 'new age' for land tenure and the kinship system were just being discovered.

179 This analysis of the 'new age' ideology indicates that it is
829 related only loosely to social and economic development. It arises
directly out of political competition between the Orokaiva, the
mission, and the government. Whenever new techniques appear to
the Orokaiva to serve this power struggle, their adoption is ad-
[731] vocated. We have seen that a traumatic event such as the eruption
of Mount Lamington, when it became the subject of Orokaiva
philosophizing, was at once put at the service of this competitive
struggle. Even when obedience to ecclesiastical and administrative rules is advocated by the ideology—and when the dire conse-

179 829 quences of disobedience are stressed by the ideology—such an attitude is viewed by Orokaiva not as part of a permanent new order but as a temporary expedient, a ploy in the power struggle.

[429] Reform is advocated in terms of such strategy. Over the last fifteen years we have seen that the Orokaiva have begun to accept the idea of converting land titles to sole tenure, as well as the inevitable consequences of such conversion for kinship organization. Such changes are explained in ideological terms as a necessary part of the competitive struggle against Europeans. The fact that Europeans view the same move as serving the cause of social and economic development is almost a coincidence.

Perhaps the most important practical conclusion we can draw about the genesis of cognitive structures has to do with the nature of power competition between Orokaiva and the administration. It is often supposed that development and political competition are separate processes in conflict with one another. The case in question shows that the Orokaiva view both aspects as part of an ongoing exchange relationship. It will have been noticed that in political debate Papuans, especially those in the villages, are reluctant to seek immediate political independence from Australia, even though tensions clearly exist. The point here is that they like to see the exchange relationships with their Australian partners continue, even though they wish to improve greatly their own position in that relationship. It may be, of course, that this attitude will change later. In the exchange relationship their own very considerable prestation is their subordination to foreign authority. In return they are receiving educational benefits which they value highly—not, fundamentally, because these benefits increase their private incomes but rather because they maximize Orokaiva power in the exchange relationship.

731 181 178 In addition, the material presented here may have theoretical implications with regard to the genesis and dynamics of cognitive structures. We must distinguish here between macro- and microprocesses. For the purpose of the discussion, I have assumed that the Orokaiva world view, with its notions of exchange and power, remained unchanged between 1951 and 1966. This assumption was convenient for the analysis, but it must be qualified. In 1966 I was given geophysical explanations of the eruption as well as magico-religious ones, and the former (though feebly held by a small elite) do prefigure a basic structural change in the Orokaiva

731 10. Compare this with the school at Sasembata, which teaches to grade six.

871 731 11. A small band of Orokaiva captured European fugitives, including male and female missionaries, and handed them over to the Japanese. The members of this band came from the area east of Mount Lamington inhabited by what Williams called the Sauaha tribe.

184 182 12. Though the Sumbiripa cycle of myths was not noted by Williams, I feel confident it existed prior to 1951, partly on evidence given in Schwimmer (1969) and partly on the evidence of a myth recorded in Belshaw (1951).

823 773 13. For sources on Orokaiva leadership, see Reay (1953) and Schwimmer (1967).

731 [829] [101] 14. The term "Waseta tribe" used by Williams is perhaps unfortunate, as I demonstrated elsewhere (Schwimmer 1969:49–53). It is used here for the sake of convenience to group together the people from the Waseta area, all of whom were quartered at Ilimo evacuation camp. The name "Waseta" is not used as a tribal name by Orokaiva; it denotes no more than the village where Williams happened to do his fieldwork.

[184] [823] 15. See also Waddell and Krinks (1968:16, fn. 3). In the final section of this chapter, I argue that the geophysical explanation is important for anthropological analysis, since it foreshadows structural change in the Orokaiva cognitive system.

731 184 829 16. These two oppositions are, as I understand it, singled out for detailed study in most of the chapters in this comparative volume. Unfortunately, a more detailed discussion is impossible in this chapter. Transactions between government and people during the relocation process have been described fully in Schwimmer (1969), including the massive administration intervention in the evacuation camps, the changes of location of government and mission centers after the eruption, and the gradual widening of the scope of government and mission activities. In my earlier report, I also referred in detail to the manner in which the relation between whites and Papuans is mediated by Papuan mission teachers, village constables, and other functionaries. On an ideological level the entire 'new age' rhetoric discussed in this chapter may be regarded as a form of mediation between microsystem and macrosystem.

[619] With regard to boundary maintenance, empirical evidence is available in my earlier report about the relations between the evacuees and the people among whom they lived. At Ilimo something akin to traditional friendly host-guest relations were established. I stress in the present essay the ambiguity of the boundary maintenance patterns. There is an ideology advocating unity and there is increasing evidence of common action, especially in the context of formal organizations set up under the influence of administration and mission, while individual webs of intertribal relationships tend to become denser as a result of migration associated with schooling, employment, and so forth. At the same time, tribalism is still the underlying principle in most transactional contexts.

731 423 425 17. This does not contradict my earlier statement (1969:66) that there was a brief period when the evacuees feared the government would take their land. Kaad reported to me that this fear existed, and I do not doubt it. In

731 1966–1967, however, this fear was not mentioned to me by informants,
423 whereas I often heard of their worries about the danger that relatives from
other villages might take their land, goods, and chattels.

425 18. On the average, an Orokaiva derives approximately half his land from patri-
lineal inheritance. In accordance with British terminology, I have called this
178 "patrimony land." The other half comes from a variety of sources, mostly
423 from uterine kin.
428

[pp. 342–400 not processed]